THE WORLDWIDE MAGAZINE FOR ALL AMIGA USERS

MORE SPEED! for your hard drive p54

AMIGA FORMAT

CD VERSION
£5.99
■ AUGUST 1998 ■ ISSUE 113
Hfl 28.95 ■ US $15.50

Emulators!

Your complete guide to the most up-to-date emulators



Windows logo © Microsoft 1998
Mac™ OS logo © Apple Macintosh 1998

Which OS?

What to expect from WB4.0

Like Lightning!

The Power Flyer gives your drives some welly!

Settle down!

Foundation reviewed inside!

COVERDISC AFCD29

Golem playable demo

Have fun with our exclusive taster of FMV game Golem – only on our CD.

Doom Editor

DEU is THE Amiga utility for gamers – you can use it to customise Doom!

Your stuff!

A great selection of your contributions this month – you can even speed up your copy of Quake!

Future Publishing
Your Guarantee Of Value
9 771363 006015 08



Weird Science
Q House, Troon Way Business Centre, Humberstone Lane, Leicester. LE4 9HA
Phone 0116 246 3800
Fax 0116 246 3801
Email sales@weirdscience.co.uk
WWW www.weirdscience.co.uk
AMINET CDs
AMIGA SUPERSTAR
AMIGA GOLD FORMAT
AMINET 23
AMINET 22
AMINET 21
AMINET 20
AMINET 19
ALL ONLY £10.99 EACH
Subscribe to the Aminet Series and receive each CD for just £8.99.
Subscription is FREE and each CD is only charged upon release.
AMINET SET 5
AMINET SET 4
AMINET SET 3
AMINET SET 2
AMINET SET 1
£27.99 £27.99 £15.99 £15.99 £15.99
AMINET 24 AND SET 6 IN STOCK NOW!
Deluxe Paint 5 is now available on CD-ROM or Floppy Disk.
DELUXE PAINT 5
£17.99
Blitz Basic 2.1 is now available on CD-ROM or Floppy Disk.
BLITZ BASIC 2.1
£17.99
Full Version available now inc. Networking & Amiga Emulation.
AMIGA FOREVER
£39.99
Lightrom 4 £19.95
Lightrom Gold £14.99
Dem Rom £ 9.99
LIGHTROM 5
£29.99
CYGNUS ED 4 £29.99
TURBO CALC 5 £69.99
TURBO PRINT 6 £39.99
P.OS PRE-REL. £19.95
MIDI NET £19.95
GIGA GRAPHICS £9.99
GEEK GADGETS £12.99
GEEK GADGETS 2 £12.99
DEVELOPERS CD £10.99
REPAIR KIT £34.99
MAGIC PUBLISHER £29.99
WEB IT £19.95
MODS ANTHOLOGY £22.99
SCHWARTZ CD £19.95
SYS BOOSTER £9.99
P. PAINT 7.1 £24.99
KARA CD £9.99
PIC. MAN. £39.99
MINI OFFICE £17.99
FONTAMANIA £9.99
Siamese RTG 2.1 CD £ 29.99
Elastic Dreams CD £ 49.99
AGA Toolkit £ 9.99
In-To-The-Net CD £ 9.99
The Learning Curve £ 19.95
Miami & In-To-The-Net CD £ 29.99
Personal Suite CD-ROM £ 4.99
Personal Paint 6.4 & Manual £ 4.99
Imagine 3D PD £ 14.99
Fusion (Mac Emulator) £ 49.99
PCX (PC Emulator) £ 49.99
Speccy '98 £ 14.99
Retro Gold £ 9.99
Epic Encyclopedia '97 £ 19.95
Amiga Desktop Video 2 £ 14.99
Magic Workbench Enhancer £ 9.99
Epic Collection 3 CD £ 14.99
NFA AGA Experience 3 £ 9.99
iBrowse (Full Version) £ 24.99
The Hidden Truth £ 19.95
Enc. of the Paranormal £ 14.99
3D CD 1 Objects £ 9.99
3D CD 2 Images £ 9.99
UPD Gold £ 14.99
TRADE & RETAIL DISTRIBUTORS FOR GTI, SCHATZTRUHE, CLOANTO, GRAPHIC DETAIL, INTERACTIVE, EPIC, SADENESS, PD SOFT, HISOFT, VULCAN, GUILDHALL LEISURE, AND AMIGA INTERNATIONAL.
International Distributor:
SCHATZTRUHE
G.T.I.

All You Need For Internet And Comms!

netconnect v2 £59.95

NetConnect v2 is the easiest and most comprehensive Internet compilation designed to enable any Amiga user, from novice to expert level, to get onto and use the Internet. Based around 11 commercial programs (including the Contact Manager), and worth over £150 if bought separately, you are given all you will need to get the most from the Internet. By using the new Genesis Wizard, a user should be able connect to the Internet in a matter of minutes. Ideal for both an Internet or local area network connection.

11 Commercial Programs within NetConnect v2!



AMITCP-GENESIS
NetConnect v2 users will be the first people to use this new TCP stack! Based on AmiTCP Pro, we have added a number of changes - new Wizard, MUI based dialler, multi-user support, 'events' control, status window (time on 'net, connection speed), new prefs.

MICRODOT-II
A superb combined email and newsreader within one GUI! Contains all the major features you would expect - MIME attachments, support for POP3/APOP, search function, multiple signatures, multiple user support, Arexx port etc.

AMIRC
Chat online with friends about topics, join conferences, organise mass meetings. The IRC is one of the most addictive elements of the Internet - AmIRC is the best Amiga IRC client.

AMTELNET
Telnet into remote computers (from anywhere in the world) - edit files on a computer in Germany from your Amiga, maintain directories for your web pages, check the status of the network, play online games.

AMTERM
AmTerm is a communications package which allows you to connect to a BBS, to another user (direct link), transfer files via a serial connection (Amiga<>Amiga, Amiga<>PC etc).

VOYAGER-NG
Voted the best Amiga web browser by CU Amiga - supports SSL for securing ordering, HTTP 1.1 (for the fastest web access) fastmem AGA support (use fast mem to store images) and very soon JAVA™, Javascript and AGA fastmem support!

AMFTP
AmFTP is the ultimate Amiga FTP client. Download/upload programs from any FTP site, also supports ADT to allow you to download the latest files from the Aminet and Archie to search FTP sites for files.

AMTALK
A direct chat client for the Amiga. Acts as an online answerphone service for people to leave messages. You can talk directly 'realtime' to friends on the Internet.

NETINFO
NetInfo is a cool tool for analysing the network and the people connected to it - 'finger' your friends to see if they are online, 'ping' servers to find the response speed.

X-ARC
X-Arc is the Amiga's answer to WinZIP™ - automatically decode LHA/LZX/ZIP files, edit the contents of these archives, create your own archives. Full integrates with NetConnect v2!

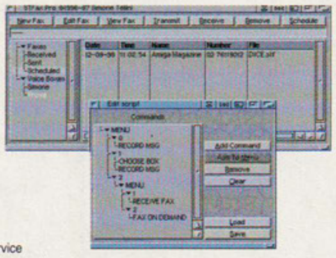
Plus much more..

- **Setup Wizard** - makes configuring your ISP a doddle. Choose your modem, enter some user details and then the rest of the process is completely automatic! Easy setup of more than one network interface - use more than one ISP or setup a Local Area Network (for the Siamese).
- **MIME Prefs** - Central MIME prefs interface means that you only need to setup file types once with on nice interface! This saves masses of time and effort (especially for beginners).
- **Control Manager** - A central control manager that allows you to store your favourite web and ftp sites, IRC servers/channels, friends, email addresses, fax numbers and then use them within various NetConnect modules - Voyager, Microdot-II, AmFTP and AmIRC! Also compatible with STFax Pro.
- **Multi-User System** - Use Genesis/NetConnect with more than one user (a family) and log in on startup, use your own preferences, your own account(s) within Microdot-II etc.
- **Programs are now keyfile based** (can be used with any TCP stack - Miami etc)
- **Extras pre-configured**: MIME types (CD only), datatypes (CD Only), online help files etc
- **Dock bar** - allows you to create multiple dock bars with point and click ease - just drag the icons you have created into the icon bar! NetConnect v2 is pre-setup with its own icon bar for ease of use.

NetConnect v2 CD [contains many extras: datatypes, MIME types (for www browsing) and much more]	£59.95
NetConnect v2 Floppy Disks [only contains the core programs & online help documents]	£59.95
NetConnect v2 Upgrade from v1 [registered NetConnect v1 users only]	£call

stfax professional (new version 3.2) £29.95

STFax Professional is new commercial fax and voice mail program which enables you to use your Amiga as a digital answer machine, send and receive faxes from most Amiga programs and setup a mini-BBS. Ever wondered who companies manage to create their voice based operator system? You can do this at home! 'Press one to leave a message for Mike or press two to leave a message for Sue'. STFax is also ideal for the small business owner: setup a fax on demand service (so customers can receive information about your products 24 hours a day), advanced message box system for the employee's, log callers via caller-ID, control other programs etc. New v3.2 offers you even more powerful voice features, including:



- **Full Fax Features:**
  - **Full Fax/Modem Class (1, 2, 2.0) Support**
  - **Phonebook** - store all your fax and telephone numbers
  - **Scheduler** - store fax messages to send at specified times
  - **Broadcasting** - send one fax to more than one recipient
  - **Reports** - quickly see when a fax was sent and received
  - **Printer Driver** - redirect all print-outs to a fax file (print from Wordworth, Pagestream, Final Writer, a text editor etc!)
  - **Fax Viewer** - view outgoing/incoming fax messages
  - **Fax Forward** - forward faxes to another machine
- **Advanced Voice Features:**
  - **Advanced Digital Answer Machine** - unlimited storage space
  - **Multiple-User** - assign voiceboxes to individual users. A family could have a voicebox per member and receive their own voice messages.
  - **Advanced Voice Scripting** - create your own voice network/fax on demand service
  - **Use the Modem as a Telephone** - make and receive calls via STFax Pro and your modem
  - **Remote Access** - listen to your messages from an external source. ie. from another phone or even country!
  - **Caller-ID** - see who is calling you (number and name of caller), choose to intercept the call or allow STFax to auto-answer, see who has left a message and 'reply' to the caller via the modem, attach a personal greeting to a specific phone number and only that person hears the message.
  - **External Program Control** - start an arexx script when an incoming call is detected or when the caller has hungup and control other programs. A music player could pause for an incoming call and then continue when call has ended.
  - **Call Screening** - blacklist phone numbers. Sick of sales people calling after 6pm? Nuisance callers? Blacklist their numbers (you can even blacklist 'withheld', 'unavailable' and 'international' numbers) so STFax either ignores their call or simply plays a custom greeting "sorry, this household does not welcome cold sale calls"! You can also set priorities per caller - STFax notices an important caller, it plays a warning sound.

high quality modems from.. £69.95

Choose from three high-quality **branded** modems - the top of the range, award winning PACE 56K, the new PACE 'Solo' 56K or the middle of the range Dynalink modem. Both come with a five year warranty. The PACE modem also ships with free lifetime technical support, UK caller ID (only modem available which supports this), a superb speakerphone, conferencing feature, volume slider, easy to understand LED's and non-technical, easy to read documentation. The PACE is currently the best 56K modem you can buy, virtually winning every single modem review in the PC, Internet and Mac press. All PACE 56K modems are now v90 shipping ready - the agreed standard for 56K connectivity. Why not treat yourself to the brand new PACE 'Solo'? The 'Solo' be used standalone from your Amiga. Want to go on holiday but need to receive fax and voice messages, but don't want to leave your Amiga running? The 'Solo' is the answer.

pace External 56K Modem



- Quality branded PACE 56 voice modem
- v90 ready (new 56K standard)
- 5 year warranty, life time free technical support
- 56000 bps DATA/FAX/VOICE modem - true v34+ Throughput to 115,200 (230,400 for internal) BPS
- Group 3, Class 1 send/receive FAX (14.4)
- V.80 (video conferencing) capable
- Call Discrimination
- UK Caller ID (unique to PACE modems)
- 10 LED's for full status monitoring
- Analogue Simultaneous voice and data (A.S.V.D.)
- Speakerphone for hands-free operation
- Mute button for secrecy
- Upgradable ROM chip
- On/Off switch to rear of unit
- Volume slider for speakerphone control
- Includes headphones/microphones - voice control
- Serial cable included (with 9 & 25pin connectors)

pace 'Solo' 56K Modem



The PACE 'Solo' 56K modem replaces your existing fax, answermachine and modem. It can work independently from your Amiga (so you can turn your computer off to receive messages, if you prefer). It contains the features listed to the left and includes:

- Full specification fax/voice answer machine with message replay, time stamping, remote retrieval of messages all operational in stand-alone mode.
- Stored messages accompanied by time, date and caller-id where applicable.
- On board memory stores any combination of approximately 30 minutes of speech or 30 pages of faxes.
- Group 3, Class 1 and Class 2 FAX (14.4)
- 1 expansion bay with 2 sockets for flash memory expansion modules.
- Memory expansion options upto 32Mbits.
- 5 backlit function keys, 11 function keys

PLEASE NOTE: PACE 'Solo' modem available 18th May. Limited UK stock, order early to avoid disappointment.

Dynalink 33.6K External Voice/Fax/Data Modem	£69.95
Dynalink 56K External Voice/Fax/Data Modem	£89.95
PACE 56K External Voice/Fax/Data Modem	£129.95
PACE 'Solo' 56K External Voice/Fax/Data Modem	£189.95

modem pack options from.. £79.95

Various money saving packs are available. These are all based on the Dynalink 56K modem. Packs based on the 33.6K or PACE 56K or PACE 'Solo' 56K modem available.

Code	Pack Contents	£ Prices
PK01	56K Modem & STFax	£ 99.95
PK02	56K Modem & NetConnect	£119.95
PK03	56K Modem & NetConnect & STFax	£129.95
PK04	56K Modem & NetConnect & Hypercom1 & STFax	£164.95
PK05	56K Modem & NetConnect & Hypercom3Z & STFax	£189.95

DEDUCT £20 for a Dynalink 33.6K Modem (instead of the Dynalink 56K)
ADD £40 for a PACE 56K Modem (instead of the Dynalink 56K)
ADD £100 for a PACE 'Solo' 56K Modem (instead of the Dynalink 56K)

- All packs come with one month free connection to Demon Internet and/or UK Online
- Choose between the CD or Floppy disk version of NetConnect with your modem pack

miscellaneous

	By Disk	By EMail
Miami - TCP/IP Stack for the Amiga	£28.00	£26.00
Voyager Next Generation	£22.00	£20.00
Microdot-II	£20.00	£18.00
AmIRC	£20.00	£18.00
AmFTP	£20.00	£18.00
AmTalk	£17.00	£15.00
X-Arc	£14.00	£12.00
AmTelnet + AmTerm Package Deal	£20.00	£18.00

- *5% Discount when 2-4 Vapor products are bought, 10% Discount for 5+*

high speed serial cards (new models!) from.. £44.95

The ***Hypercom*** range of high-speed serial cards offer your Amiga the fastest connection to the Internet, for comms and fax transfers. Available for the Amiga 1200, A1200 Towers and Zorro-II/III based machines (Zorro version suitable for A1500/2/3/4000 or a A1200 tower).

Model	Machine	Specifications	Price
Hypercom1	A1200	1 x 460,800bps highspeed buffered serial port	£39.95
Hypercom3	A1200T	2 x 460,800bps highspeed buffered serial, 1 x 500K bytes/sec parallel port	£79.95
Hypercom3Z	Zorro-2/3	2 x 460,800bps highspeed buffered serial, 1 x 500K bytes/sec parallel port	£74.95
Hypercom4	Zorro-2/3	4 x 460,800bps highspeed buffered serial ports	£89.95

internet informer/extra information

Still unsure about connecting to the Internet? Want more information? Confused by all the acronyms such as 'ISDN'? Confused about the costs? Wondering whether your Amiga can access the Internet? No need to worry any longer - we have released issue 2 of our 'Internet Informer' for Amiga users. A leaflet that offers you all the information you require in order to get your Amiga onto the Internet. Modem choices, software that is available, service providers for the Amiga, questions and answers. It also contains information about NetConnect and what we can do to get you onto the Internet. For your free copy, call us or write to us.

ACTIVE

Oval House, 113 Victoria Road, Darlington, DL1 5JH
Tel : 01325 460116
Fax: 01325 460117
E-Mail: sales@active-net.co.uk
http://www.active-net.co.uk

DELIVERY CHARGES

S'Ware	- £0.50 for UK delivery - £1.00 for EU delivery - £1.50 World delivery
H'Ware	- £4 for 2-3 day delivery - £6 for next day delivery - £call for Saturday delivery

Make cheques/P.O.'s payable to Active Technologies and send to the address listed opposite. We can accept credit or debit card orders. For any additional information call us!

Month In View

Summer may be a traditionally slow time for the industry, but for **Nick Veitch** it seems to be flying by...



When you are counting the days, waiting for some news, time seems to drag. If you remember back at the World of Amiga show in London on May 15th, Amiga Inc. said that they would be announcing their partners for the next OS within 30 days.

Those 30 days have passed and we still haven't received any definite news from Amiga Inc., which is a shame, not because we are in any way concerned about their future plans but more because we can't reveal them more fully to you. You will find, however, that we have nevertheless attempted to dispel some of the more scurrilous rumours regarding the decision, and we inform you of the way Workbench development is likely to proceed in our feature on page 20.

But time hasn't been dragging by for us at all because we have had an unexpected amount of activity to cover. As you may have deduced from the cover, we are revisiting the subject of emulators, with a new version of *Fusion*, an update to *ShapeShifter* and the only PC software we have ever covered, *Amiga Forever 2*.

I myself have had quite an enlightening experience thanks to another, rather unexpected hardware release – the Power Flyer. This rather excellent piece of hardware plugs into an A1200 and gives it a proper EIDE (or Fast ATA 2, if you want to get pedantic) interface, meaning most people's hard drives will go at least twice as fast. The hardware is really cunning and it has to be to replace the built in IDE interface. I urge you to check out the review on page 54.

One of the things it might be useful for is installing the mammoth *Foundation*, leading off our game reviews this month.

Nick Veitch
Editor



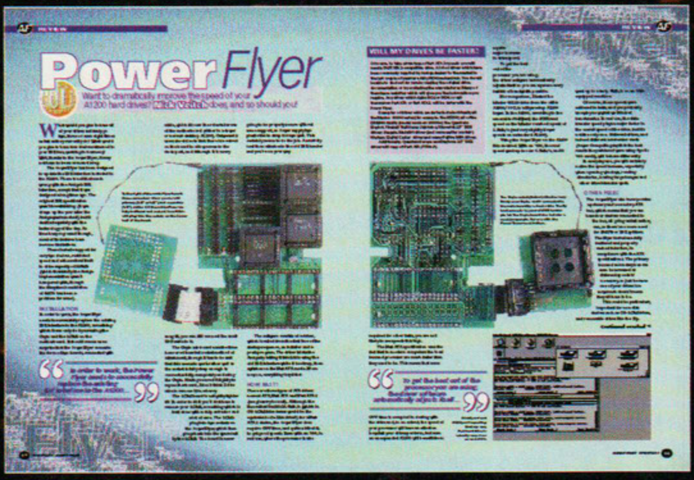
EMULATORS PAGE 14
Amiga Forever could have a greater significance to the Amiga these days, so emulator guru Simon Goodwin gives version 2 the once over.



AN OS FOR THE FUTURE PAGE 20
Operating system expert Dave Taylor takes a look at the options open to Amiga Inc. and explains the features likely to be in the next version of Workbench.



FOUNDATION PAGE 34
It has taken many painstaking months to produce, but now is the time for the graphically stunning *Foundation* to attempt to impress Andy Smith.



POWER FLYER PAGE 54
A small, inexpensive piece of hardware which will more than double the speed of hard drive access on the A1200. Are you interested? You should be...

AMIGA FORMAT

Contents

ISSUE 113 AUGUST 1998

Shooting and flying, fighting and pillaging, puzzling and pondering. There's something for everyone...









WHAT'S UP?

Motorola and IMB split
The two long-term PowerPC development partners have separated.

Football news
World Cup games and websites.

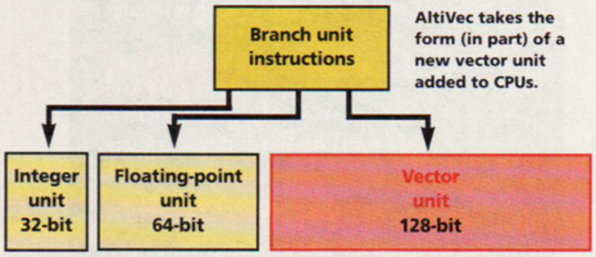
Toronto show report
News and opinions from Canada's foremost Amiga show.

AMIGA WORLD NEWS

Motorola take over G4 development

In a shock announcement this month, long-time PowerPC partners Motorola and IBM are to split. Apparently arguments over the direction that the new AltiVec technology was taking the forthcoming G4 range of processors lead IBM to take their leave from the Austin, Texas-based joint venture.

Set up in 1992 to develop the PowerPC, the Somerset facility in Texas will now be wholly owned by Motorola. Existing IBM-employed engineers at the plant have all been offered jobs with Motorola, enabling them to stay at the plant. IBM will continue to manufacture the current so-called G3 PPC chips up to the copper-based 400MHz version, but they will not be supplying the forthcoming AltiVec-based chips which they claim have little benefit in the server market.



AltiVec takes the form (in part) of a new vector unit added to CPUs.

Although IBM manufactured the first PowerPC chips (the PC601 series), nearly all further output has come from Motorola. A further dissatisfaction with the desktop market, following IBM's abortive efforts with the PReP and CHRP box computers, means that IBM will be pulling out of further development of the processor and looking to build its embedded systems market instead, away from the competition that the Wintel duopoly create.



Motorola have been in the embedded systems market since before there was one established and they are well-known around the world for their consumer technology products, including mobile phones and car stereos.

Their sales of the 68K family and even PowerPC family as central cores for embedded systems far outweigh the number of chips they supply for the desktop computer market, including the Amiga and Apple Macintosh. In any case, Apple watchers *Mac Format* were not worried. Alex Summersby, editor of *Mac Format*, said, "This whole thing won't make much of a difference to the Macintosh market for years to come."

Of course, this is all taking place against a backdrop of Intel reducing the price on its Pentium processors, with reductions of as much as 32% on some chips.

On a side note, Motorola's 68060 chip has been very hard to source, leading Amiga accelerator manufacturers to offer the older and slower '040 as an alternative. phase 5's managing director, Wolf Dietrich said that Motorola were claiming a lead time of twelve weeks and asking an increased price per chip that made those that have to wait patiently for an '060 grind their teeth.

It is unclear whether the reason for this lack of chips is down to delivery of the 75MHz 68060 we talked about some months ago, and which has since been detailed on Motorola's own website: http://www.mot.com.

WHAT THE HECK'S ALTIVEC?

Although Intel's MMX (MultiMedia eXtensions) add-on for the Pentium processor has been well-touted, the popular opinion in hardware circles is that it's not very useful and can even slow down certain operations on a PC. AltiVec is, to some extent, the PowerPC version of these extensions but with many more instructions included, not just image and sound. The new extensions will comprise a hardware part and upgraded system software to deal with them. In addition to the existing integer and floating point execution units that all PPC processors have (and which most '040s and '060s also have – we know them as separate units for the '030, the CPU and FPU), there will be a new vector unit, presumably designed solely for 3D operations within the computer.

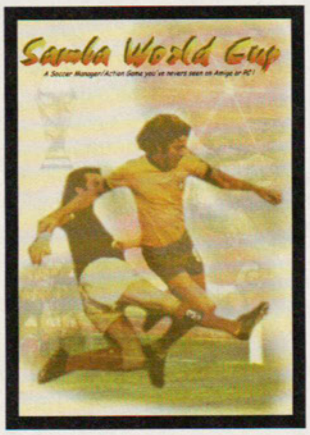
AltiVec adds fatter pipes and a "data engine" inside the PowerPC chip for manipulating large quantities of all sorts of data. Potential applications include speech processing and networking routers which manage Internet traffic. Indeed, the chip is to get its first public airing at a networking conference rather than a multimedia event.

However, there's always the sting in the tale as the new processors using this AltiVec technology will be no faster than existing processors if programmers take no advantage of the new instruction set.

They think it's all over!

Should you be girding your loins to watch the World Cup final as you read this, you'll be interested to know that Alive Mediasoft are girding theirs to release what they claim is the definitive football game for the Amiga, *Samba World Cup*. The CD version of the game promises full spoken commentary in English and German and the game should run on ECS, AGA and graphics card-equipped systems.

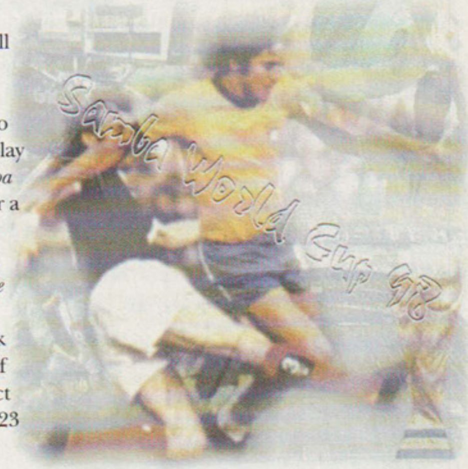
Although news of the game has been around for some time now, it should be on sale before the seats in the St. Denis stadium are cold – look out for the first demo of it on our next CD, *AFCD30*.



> The game promises different weather conditions as you play matches in six of Europe's best-known leagues...

The game promises different weather conditions as you play matches in six of Europe's best-known leagues – the Premier League, Serie A, the Bundesliga and the French, Dutch and Spanish leagues. You can also take part in European Cup games and the World Cup itself. At the moment, it isn't clear whether the teams and player names will all actually be accurately transferred from existing details, but there will be an editor included so that you will be able to change the names to protect the innocent. In addition to being able to actually play games of football, *Samba World Cup* will also offer a full management simulation, such as the one included in *Sensible World of Soccer*.

For more details, look out for the next issue of *Amiga Format*, or contact Alive Mediasoft on 01623 467579.



A lot is promised for *Samba World Cup*. Let's hope it lives up to its potential.







Football365

Sticking with football for the time being, we have news of a new website called Football365.

This site is devoted to bringing football news from around the world every single day of the week. Why have we devoted space to advertising what seems to be just another website? The reason is that it is really more of a newspaper than a static site and they'll send you an email every morning containing the day's football news for reading offline.

There's also an Amiga client written by those boys at AmigaSOC, designed to take apart the attachment so that you can view it with your favourite browser, whether that's *Voyager*, *iBrowse* or *AWeb*.

The site itself has some high-powered names contributing to it, including Channel 4's *Under the Moon* presenter, Danny Kelly.

To get your own personalised football paper delivered free to your computer every day, zip along to http://www.football365.co.uk and get yourself signed up for the Amiga client software.





Football365 has some great writers working on it and you can read it online or offline.

GTI CHARTS

TOP 25 AMIGA-PRODUCTIVITY

1	CD	Aminet Set 6
2	CD	Aminet 24
3	CD	Amiga Format CD27
4	CD	Amiga Tools 8
5	CD	Amiga Forever 2
6	CD	Aminet 23
7	CD	Amiga Format CD26
8	Disk	Oxyron Patcher
9	CD	Wordworth 7
10	Disk	Miami v3.x
11	CD	Aminet Set 5
12	CD	Kara Collection
13	CD	Aminet 18
14	CD	Siamese System v2.1
15	CD	Scala MM 400
16	Disk	TurboPrint Prof 6
17	CD	Personal Suite
18	CD	Aminet Set 4
19	CD	Elastic Dreams
20	CD	Aminet 22
21	CD	Aminet Set 3
22	CD	Deluxe Paint 5
23	CD	Eric Schwartz CD
24	CD	Aminet Set 2
25	CD	Workbench Designer 2

GTI are Europe's largest distributor of Amiga CD-ROM titles.

Continued overleaf ➡

AFB IS GO

To make sure you keep up with the latest developments in the Amiga world, *Amiga Format* is launching a low-volume, announce-only mailing list for our readers called The Amiga Format Bulletin. We aim to send out at least one mail every four weeks containing details of the issue about to hit the streets, rumours floating around, extra net-oriented news stories and various competitions and quizzes.

If there's any important news then we'll send out interim bulletins, but we won't flood your mailbox every day with loads of people saying, "Me too!".

If you want to hear the latest news and get in on extra competitions, feedback for the magazine and more, simply send an email to afb@futurenet.co.uk with "subscribe" in the subject line to subscribe, and "help" to get more information – any other subject lines will be ignored.



Some of the flyout tools showing the natural media potential.

Photogenics NG

Those of you who attended the WoA show in Hammersmith in May might well have been enthralled by Paul Nolan on our stand as he showed off the work he'd done on the upcoming version of *Photogenics – Photogenics Ng.* Although a distributor has not yet been arranged, the Siamese-meister hopes to have the package on sale by the end of the third quarter of this year at a price of around £100.

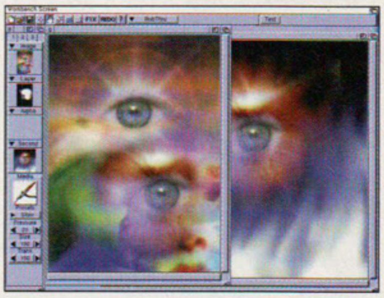
Here's a list of what Paul himself considers to be the some of the most important features of the new version of the program:

- Brand new, clutter-free user interface.
- Unparalleled levels of creativity from being able to modify (in real-time!) the colour, transparency, image processing mode, and even the position of what you have drawn.
- Natural Media tools such as AirBrush, Chalk, Pencil, Sponge, Watercolour, Smudge and Smear.
- Paint-on Image Processing allows the user to simply apply effects by drawing with any of the media tools.
- Exclusive Paint Layer technology. allows mistakes to be rubbed out without having to redo the good bits, simply by fading out with the right mouse button
- Unlimited number of easy-to-use layers allow fast image composition.
- Powerful new Text handling.
- Stunning Paint-on pyrotechnics such as lensflares, fires and explosions, as well as much, much, more…



We've seen it in use and you can create gorgeous -looking images like this very quickly and easily indeed.



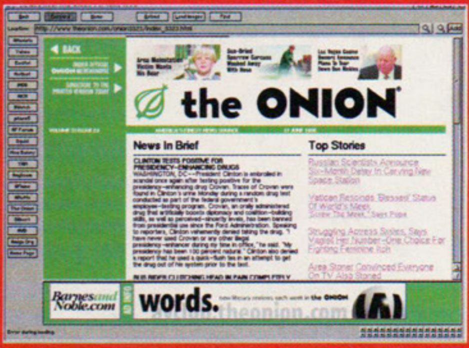


AF Net Corner

This month we've decided to steer clear of computing and football issues and try to raise a smile with the following sites instead:

The Onion http://www.theonion.com

The Onion is a weekly newspaper-style website that spoofs news stories. Although it is presented in what at first sight looks like a serious manner, headlines like, "CLINTON TESTS POSITIVE FOR PRESIDENCY-ENHANCING DRUGS" and "DONUT-SHAPED THING IN KITCHEN JUNK DRAWER HAS NO DISCERNIBLE PURPOSE WHATSOEVER", immediately indicate the kind of humour involved. Although it's only updated once a week on a Wednesday, there's a huge archive of previous stories to giggle over.



Dilbert http://www.dilbert.com

Although we said we weren't going to mention computing in this corner of the news pages, Dilbert does make us laugh, out of recognition as much as anything. Dealing with the trials and tribulations of an engineer in a large company, Dilbert and his chums seem to be the next cartoon characters to get a big marketing push in this country. As well as having a brand new cartoon every day, the site contains plenty of other things to see and do.



Dr. Seuss http://www.seussville.com

If you love the stories from the *Cat in the Hat*, you like booing the Grinch and you're willing to try *Green Eggs and Ham*, there's only one site for you. Some of the games on the site require Shockwave, which we obviously don't have yet, but a lot of the others can be printed out for small ones to play with while you carry on browsing and laughing at Theodor Geisel's excellent drawings.



"I do not like them Sam-I-Am, I will not eat Green Eggs and Ham". If these words give you tingles of nostalgia then you'll love this site.

Feel part of the machine as you join millions of others on the net, starting your working day with Dilbert.

Toronto show

Canada's premier Amiga show was held on a Friday and Saturday this year, as an experiment to see whether people would rather have their Sundays free of Amiga stuff. However, it didn't turn out as well as the organisers had hoped, with a much lower attendance than expected and will no doubt be returning to a more traditional weekend-style next year.



Rick Giannini from Asimware typing like mad on the public IRC sessions held during the show.



The event, organised by Randomise, had a wide variety of stands, although the general feeling voiced by people was that it was a bit downmarket. However, the show itself was possibly the least important part of the weekend as the seminars and informal meetings between Amigans took place until the early hours.

Although Amiga Inc. were present, they didn't really offer any more information than that which was presented at the WoA show the fortnight before, and they even kept their announcements very low-key in comparison with their ebullient statements at the London show.

There was also no organised clarification of the situation regarding the Intel-based "November box" machine that is designed for developers for the new Amiga, even though that machine has probably been the biggest source of confusion in the Amiga market since the original A1000 was first available.

> "There was also no organised clarification of the situation regarding the Intel-based "November box" machine…"

Even though *Amiga Format* didn't actually attend the Toronto show, we have our spies everywhere. Here's what some of them had to say:

"The most impressive software I saw for the first time was Toysoft's *AirMail* product. The seminars were top-rate, but at a cost of about $30CDN per hour, only a few people attended. What a shame."

– Alan Redhouse, Eyetech Group (EZPC tower inventors).

"Good show with enthusiastic Amigans, well organised by the people from Randomise with public seminars and events. More exhibitors would have been better and the attendance was somewhat down on what one may have expected."

– Greg Perry, GPSoftware (authors of Directory Opus 5).

"An enthusiasts show, full of Amiga stalwarts on both sides of the counter. Good business done by Wonder Computers and National Amiga, who were selling all sorts of 'Classic' stuff. Worth being there for the real Amiga Boing Balls."

– David Link, HiSoft (creators of the Squirrel).

Photos taken by the deeply wonderful Laura Bird and Larry McGahey.











Boing balls, boing shoes and the CN tower form the main impressions taken away by visitors to the show.















Below: Joe Torre makes yet another mini boing ball.







Amiga Inc. didn't expand upon their statement from the WoA show in London, except to briefly mention the PPC in conjunction with OS 4.0.

The AmiWest show is shaping up to be quite an event. Confirmed speakers include Carl Sassenrath, who will be presenting a seminar on his newly developed REBOL language, and 1997 AAA Award winner Holger Kruse, the developer of the *Miami* TCP/IP software, which he will be demonstrating at the show.

The Amiga Inc. management team will all be present, including Managing Director Jeff Schindler and the President of Amiga Int., Petro Tyschtschenko, who will be selling copies of his renowned Amiga theme CD, *Back for the Future*. Over the course of the weekend, Amiga Int. will be raffling two A1200 Magic Packs, amongst other prizes. Tickets cost $12 for the weekend and $8 for a single day.

Check out the website at http://www.sacc.org/amiwest/ for more details.

Diary

- **AmiWest**, July 11th-12th (Developer days 10th-14th July), Sacramento, CA, USA. http://www.sacc.org/amiwest/
- **BSE 98**, August 7th-9th, Diepenbeek, Belgium. http://bse.base.org
- **California Computer Expo**, August 20th-23rd, California, USA. More details to follow soon.
- **Live 98 – technology show**, 24th-27th September 1998. Contact Blenheim Exhibitions (0181) 742 2828.
- **Computer 98**, 13th-15th November 1998, Cologne, Germany. More details to follow.



In typical Teutonic style, the poster says: "What? You're not going to Cologne?!"

Cheap CD writer package

Eyetech have launched the first low-cost IDE CD-R package for the Amiga. This CD-ROM writer, called the CDPlus-Gold EZWriter is available for only £299.95. The unit is a 2x write/8x read drive and tests done by Eyetech show that it is perfectly possible to write a CD at double speed on the fly while multitasking with a moderately expanded Amiga 1200.

The EZWriter supports multisession writing, audio track creation and CD duplication thanks to the supplied copy of *MakeCD* bundled with the hardware. Those who don't already have a 4-way buffered IDE interface can take advantage of Eyetech's offer of an EZ-IDE interface complete with cables and software for just £20 and a 10-pack of CD-R discs for £10 at the time of purchase. For more details on the EZWriter, contact Eyetech on 01642 713185, or look out for our review in next month's *Amiga Format*. Also, turn to page 58 for our super competition to win one!

Snippets

RECYCLING NEWS

BIBIC, the British Institute for Brain Injured Children, have told us that they can now recycle inkjet cartridges. This is in addition to their already popular laser print toner cartridge recycling scheme, which last year managed to raise enough money to fully support 12 youngsters on their home-based programme for a year.

This programme includes sensory-motor therapy and parts derived from speech, occupational and physiotherapies, and is intended for children diagnosed as suffering from brain injuries ranging from epilepsy to autism.

For more information on this deserving recycling scheme, call Samantha Hansen at BIBIC on 01278 684060 for a free information pack.

LABELS FOR ZIPS

Avery Dennison, the manufacturers of a wide range of labels designed for printing on inkjet and laser printers, have introduced some new labels to their existing wide range.

Jan Philp, Avery's Marketing Communications Manager, said that the labels for the Zip drive and LS-120 drive were "specifically designed to cater for the latest information storage media needs".

For details on stockists of all Avery labels, contact Avery on 0800 805020.

AmigaSoc UK
It's Official

AmigaSoc UK are now the official UGN (User Group Network) representatives for the UK. They are aiming to provide support and help to all UK user groups by supplying up-to-date news reports and accurate information about upcoming events.



AmigaSoc already have a comprehensive list of user groups on their website and they are inviting anyone who has not yet registered to do so now.

For more details, email chrisl@uk.amigasoc.org or pay a visit to the AmigaSoc website at: http://www.amigasoc.org. Alternatively, take a look at the UGN website at: http://www.amiga.org/usergroups/.



AmigaSOC are now the contact point in the UK for UGN.

Kickstart Sale

If you can't find that elusive bit of hardware or software in our free Reader Ads section, try the Kickstart User Group's Amiga sale on Sunday, August 23rd. Located at Brook Hall in Ottershaw, Surrey, it could be the best chance for you to grab some bargains and sell some of your unwanted Amiga goods.

The sale starts at 2pm (1pm for sellers, who must book in advance) and the entrance fee is a measly £1 for members or £2 for non members.

For more information, contact Rob Gilbert on 01932 562354 or email gilbie@arrakis.u-net.com.

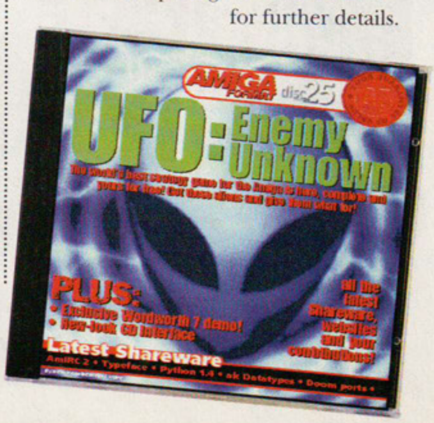
AFCD25 PROBLEMS?

If you are having problems with *AFCD25* then the chances are that you have either a Sanyo CRD250 2x SCSI CD-ROM or a Compaq 4x model that is otherwise identical to the Sanyo.

The problems with these drives are caused by the fact that they weren't built to the full ISO 9660 standard. Although we have changed the way we make the CD since then, your best option to avoid similar problems in the future is to get a new drive. Power Computing's current 2x SCSI drive is not affected by this problem, so should prove a decent budget buy for those after SCSI gear.

Alternatively, the CD-ROM drives we recommended in last month's *AF* by Eyetech and Power are both very good and should provide you with many years of trouble-free CD-ROM fun.

Contact Eyetech on 01642 713185 or Power Computing on 01234 851500 for further details.



SOUNDPROBE PLUS SAMPLING HARDWARE ONLY £34.95

2GB 3.5IN IDE HARD DRIVE
SUITABLE FOR FITTING IN TOWERS
£99.95

BARGAIN CD-ROM PACKS

CD-ROM DRIVE SQUIRREL SCSI INTERFACE PLUS THREE FREE CDs

DOUBLE SPEED PACK £79.95
QUAD (3.4) SPEED PACK £119.95
EIGHT SPEED PACK £129.95
TWELVE SPEED PACK £169.95

ADD £30 TO THESE PRICES FOR A SURF SQUIRREL INSTEAD OF A CLASSIC SQUIRREL

CD REWRITER

YAMAHA 2260 MECHANISM
2X WRITE, 2X REWRITE, 6X READ
INCLUDES MAKECD DAO SOFTWARE
INCLUDES ONE FREE GOLD DISC

WOT A BARGAIN!
INTERNAL £299.95
EXTERNAL £349.95

ADD-ON DEAL

WHEN ORDERING YOUR REWRITER, BUY A BOX OF 25 GOLD DISCS FOR £35 OR 60 FOR £68


DOUBLE SPEED PACK ILLUSTRATED

MAKE·CD

BETTER COMPACT DISC BURNING SOFTWARE FOR YOUR AMIGA

COMPATIBLE WITH ALL POPULAR READERS, WRITERS AND REWRITERS

TAO £39.95
DAO £49.95

BLIZZARD SCSI KIT £59.95

603e BLIZZARDS

160MHz £279
INCLUDES 68040-25, FPU, FAST SCSI
250MHz £399
INCLUDES 68040-25, FPU, FAST SCSI

CALL FOR OUR BEST MEMORY PRICES

BEST BLIZZARD 1230 BUY-BACK PRICES

PROMIDI INTERFACE WITH TWO FREE MIDI LEADS £24.95

NEW IBROWSE V1.2 £29.95

STUDIO 2 PRO

THERE IS NO MORE POWERFUL SOFTWARE FOR HIGH QUALITY PRINTING ON YOUR AMIGA

COMPATIBLE WITH
EPSON STYLUS 600/800
CANON BJC 250/4300
AND MOST OTHER POPULAR PRINTERS

NEW LOW PRICE! £29.95

CINEMA 4D

THE CD EDITION (V4)

INCLUDES CINEMAFONT & CINEMAWORLD
INCLUDES MEGABYTES OF TEXTURES
INCLUDES MANY EXAMPLE MODELS & SCENES
INCLUDES FULL VERSIONS OF MAGICLINK & MAINACTOR

MEGA DEAL

ALL THIS AND MUCH, MUCH MORE FOR ONLY

£99.95

(NO, YOUR EYES DO NOT DECEIVE YOU, THAT'S NINETY NINE NINETY FIVE)

UPGRADE PRICES
FROM V2 £69.95
FROM V3 £29.95

Don't forget our wide range of software and hardware for your Amiga, which includes music and midi packages, accelerator cards, memory, disk tools and utilities, programming languages, printing software, zip drives and an extensive catalogue of cd-rom titles at unbeatable prices.

FIRST STEPS AMIGA BOOK £2

£29.95 AMIGA FOREVER
RUN AMIGA SOFTWARE ON YOUR PC

FREE MaxonMAGIC WORTH £29.95 WITH EVERY ORDER PLACED FROM THIS ADVERTISEMENT. QUOTE REFERENCE: FREEBLANKER

0500 223 660

2GB 2.5IN IDE HARD DRIVE
SUITABLE FOR A1200 INTERNAL
£169.95

EASY-CONNECT INTERNET PACKS

INCLUDES NET&WEB 2 SOFTWARE
INCLUDES FREE 30-DAY INTERNET ACCOUNT

NEW
33.6K £99.95
56K £129.95

Call free (within the UK) to order any HiSOFT product using your credit/debit card. We accept Mastercard, Visa, Switch, Delta, American Express etc. at no extra charge. Carriage is £4 (2-3 day service) or £6 for guaranteed next day delivery (for goods in stock). All prices include UK VAT. We also accept cheques, POs and official purchase orders.

HiSOFT SYSTEMS
The Old School, Greenfield, Bedford MK45 5DE, UK
tel +44 (0) 1525 718181 • fax +44 (0) 1525 713716
www.hisoft.co.uk • www.cinema4d.com

AURA 16 SAMPLER + SOUNDPROBE £99.95



Amiga Mañana?

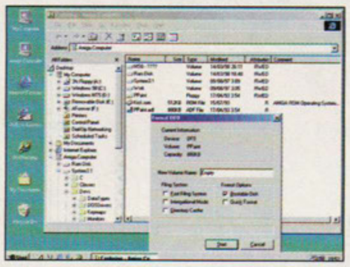
Simon Goodwin tests the finished release of **Cloanto**'s PC Amiga emulation compilation.

Although the Amiga is a very hard machine to emulate, it seems that developers are working at a breakneck pace on various solutions to solve the problem. At the moment, there are two main choices for people wanting to combine the speed of a Pentium with the brilliance of an Amiga. One emulates, the other complements, but they both require that scourge of computing life, the PC, to operate.

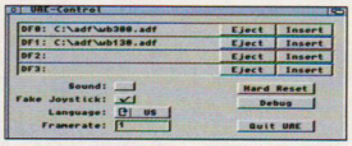
Amiga Forever 2.0 comes in a double CD case with a mixed audio and data CD at the front and an Amiga-format 880K startup disk in the back. This is not a review of UAE as we covered that Amiga emulator and its Intel-optimised doppelganger *Fellow* in *AF108*. Since then, the 'preview' version 1.0 of *Amiga Forever* has been supplanted by version 2.0, the real thing, at twice the price.

The minimum configuration is a Pentium PC with 16Mb RAM, 16- or 24-bit colour, Windows 95, 98 or NT4 and Internet access for support and upgrades. Remember, that's the minimum. You'll also need a serial or Ethernet Amiga link to transfer genuine disk images as PCs still regard well-stuffed Amiga floppies as being unformatted.

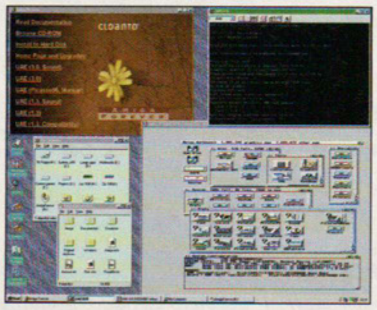
Besides a collection of recent emulators – *Fellow 1.3* and *UAE 0.7.0B* for PPC Mac and Amiga, as well as Microsoft systems – you get *Amiga Explorer* networking software to link Windows and AmigaDOS. This imitates the Mac Finder, akin to SID or Directory Opus 4, giving the front end of Windows Explorer to file transfers between the PC and Amiga.



Amiga Explorer allows access to real Amiga disks.



GadTools controls for emulation essentials.



***UAE* running on a large 1280x1024 pixel screen.**

DOCUMENTS

Amiga Forever 2's instructions come as readable HTML hypertext files. It boasts more than 500 pages of documentation, led by four 20 page (A4) sections, covering data sharing, emulation, Amiga tools and an overview of the whole shebang. It's readable from AWeb, IBrowse, Netscape or Voyager, if Microsoft Internet Exploiter is not your idea of fun.

TRIVIA

Even if you'd rather die than use a PC, you'll find rare and interesting stuff on the CD. The interview with Jay Miner, supplied three times over as CD audio, text and WAV samples, is less than ten minutes long and unlikely to hold your attention beyond a couple of plays. It was recorded on a cassette machine with fading batteries, so while the editors have done a good job of cleaning it up with *AudioLab*, the clattering of crockery in the background is a distraction which adaptive filters cannot assuage.

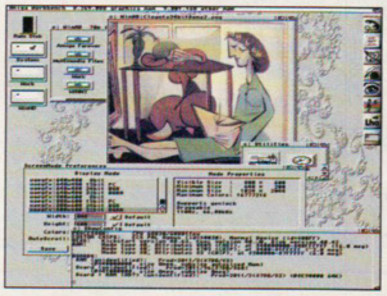
The facsimilies of his original Amiga patent are intriguing, though relatively opaque to non-technical readers. It's a fascinating insight into what makes the Amiga design so unique, with diagrams and details to enable anyone 'well versed in the art' of circuit design to appreciate its innovation.

A large part of the documentation is Gareth Hunt's Amiga Interactive Guide, converted from AmigaGuide to HTML format. It skims over more than Amiga history, including lots of Commodore trivia and gossip, but it's out of date in places and it's no substitute for real Amiga manuals.

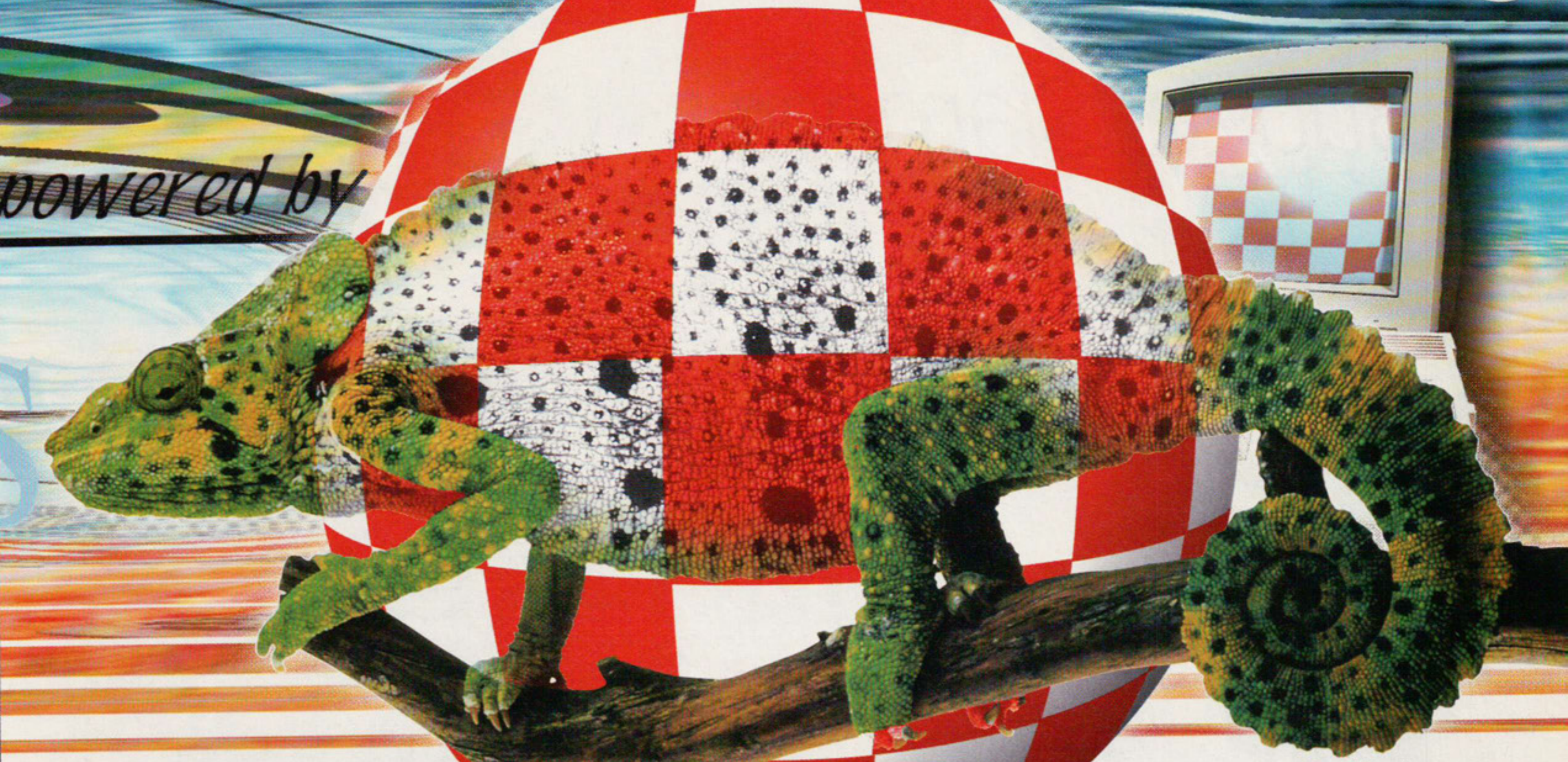
TOOLS

The pinnacle of *Amiga Forever* tools is the full version 7.1 of *Personal Paint*, complete with licensed GIF code, PPC support and other embellishments. It works very nicely with *Picasso96* retargetable graphics.

You also get *AmiToRTF*, an AREXX script for *Personal Write* which converts files in common Amiga formats into Rich Text, which most PC and Mac word processors can stomach. Like most RTF converters, *AmiToRTF* does not preserve document formatting. Type sizes, layout and pagination are unlikely to correspond after conversion, but



800x600 24-bit pixels, and 8 Mb free 'chip RAM'!



paragraph breaks and style changes like italics are maintained.

AmiToRTF imports IFF FTXT, plain ASCII and ANSI text, decoding Powerpacker or Cloanto compression on the fly. *Wordworth, Final Writer* and *ProWrite* proprietary formats are also supported, with character conversions for accents, currency symbols and the like. Going the other way needs ANSI export or the RTF import of recent versions of *Wordworth* and *Final Writer.*

Cloanto's *DirDiff* is available on Aminet, but is no less useful for all that. It compares and updates directories, reducing the effort of keeping several sets of files consistent, across partitions, emulators or a network.

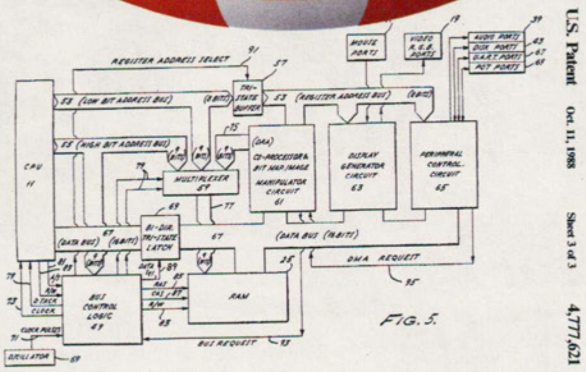
ESSENTIALS

Many files on the *Amiga Forever* CD are extensions to give PCs a standard software interface, regardless of the Frankenstein's monster of cheap chips beneath its loosely-fitting panels. It's convenient to find this all in one place, especially as *Amiga Forever 1.0* was less than comprehensive in this respect.

You get Microsoft's *Service Pack 3* for Windows NT 4, a compendium of recent bug-fixes and extensions, and *DirectX 3a* for Windows 95 – hardly the latest version of the PC graphics API, but the first guaranteed to work with WinUAE and often more stable than version 5, the current 3D rehash. VESA UBE is the Shareware equivalent for MSDOS, smoothing over the quirks of disparate SuperVGA display cards.

ASSESSMENT

Much of the content of *Amiga Forever 2* is available elsewhere. *Fellow* and *UAE* are freely distributable, *AIG, DirDiff* and *Picasso96* are on Aminet, among other tools on the CD, and a lot of the documentation is in the public domain. Cloanto have pulled together Amiga-related goodies from all over the place, tidied them up and added a front end.



Part of the Amiga patent on the *Amiga Forever* CD.



Amiga '87 meets Windoze '95, courtesy of UAE.

Amiga Forever is the only legal way to obtain disk copies of the Amiga Kickstart and Workbench software if you no longer own the originals. Well-meaning subscribers to comp.sys.amiga.emulation – strictly a group for emulation ON Amigas, not OF Amigas (try alt.emulation.amiga) – will be grateful to have somewhere to send wayward PC owners demanding free copies of the Amiga system.

The CD compendium is extensive, ranging from the primeval Kickstart 1.0 to version 3.0, with system disk images to match, although these were available on *Amiga Forever 1.0* at half the price.

The main advance is support for fast IP connections between Amiga and PC, hardware permitting, and an installation process that actually works, give or take the odd error.



Not-so helpful advice from *Amiga Forever* and NT4!

The automated installer, Wintel support files, Kickstarts and disk images make *Amiga Forever* far more approachable than an archived download of *UAE* or *Fellow.* The browser-based front end is well presented and is a joy to read, though it lacks a proper index, which would be unforgivable in a printed version.

If you've already got most of the bundled software then *Amiga Forever* is probably not for you. However, if you abandoned the Amiga for Wintel before the advent of AGA, 68040s or faster processors and still hanker after the productive Amiga environment, this is almost sure to tickle your fancy.

Continued overleaf ➡



***Amiga Forever's* browser-based front end.**

AMIGA FOREVER CD 2.0
SUPPLIED BY: Weird Science and others
PRICE: £39.95 (upgrade from version 1.0, £19.95)
COMPILED BY: Cloanto
http://www.cloanto.com/amiga/forever

OVERALL VERDICT: Attractive if you own a slow Amiga and a fast PC.

82%

Budget Siamese System 2.1

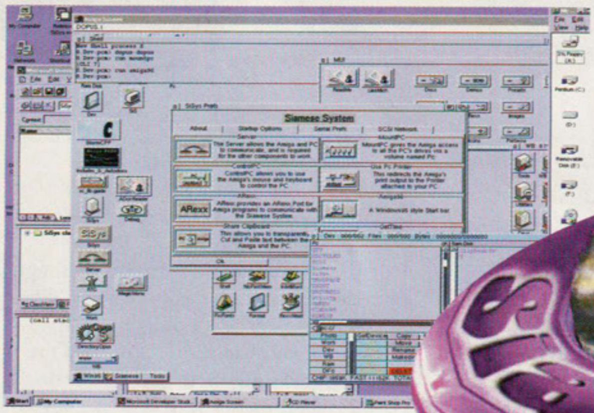
Simon Goodwin and **Peter Corlett** test the bargain **Siamese** Amiga/PC synergy.

The Siamese system does two main things: it allows file sharing between the two computers and it retargets the Amiga's user interface onto a Microsoft Windows system (95, 98 or NT 4).

Siamese version 2.1 is identical to the current version 2.5, lacking only Ethernet support. It's intended to give people who own both a Windows PC and an Amiga the chance to try out the combined system, joined at the hip by *Siamese* software.



Amiga screens on the PC desktop.





SIAMESE SOFTWARE

Siamese comes on CD with PC and Amiga software and documentation in *Microsoft Word* format (5.5 Mb) and plain text (58K). The documentation is of rather poor quality and in need of proofreading.

Our test systems were an Amiga 4000/'040, freshly installed with Workbench 3.0, and a homebuilt Pentium 200 PC running Windows NT 4 from the Administrator account. To install the software on the PC you need to copy the SiSys directory into the root of your C:\ partition. It's a mere 350K, almost invisible by PC standards. Installation on the Amiga is similarly painless, using Commodore's Installer. Again, it occupies little disk space.

Configuration of the PC side required editing the SiSys.ini file to tell it which COM port and what speed to use. Notepad complained that the file was read protected and we had to remove the read-only flag with Explorer's Properties requestor before we could save the changes.

The Amiga side of the link is configured using a GUI. This failed to work properly on a PAL display using the standard Topaz 8 font so we had to change the system fonts to use it. After this it worked fine and was easy to use.

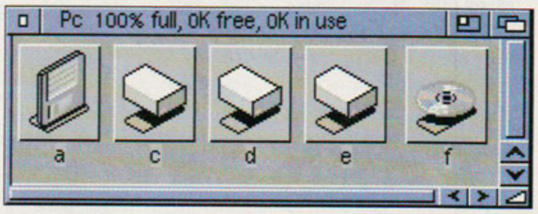
We rebooted both systems and started to run the configuration program on the Amiga. It suddenly dawned on us that the PC's mouse was controlling the Amiga! It's impressive, though the serial links make it slightly jerky – if it was an Amiga mouse, you'd want to clean it. The PC's keyboard controlled the Amiga too, without disabling the Amiga's own inputs.

Retargeted modes worked first time. ScreenMode prefs offered two extra modes. Selecting a 640x480 pixel, 256-colour mode, Workbench opened up on the PC's display. It seemed a bit sluggish when the serial link was left at the default speed of 38,400 baud, but after this was increased to 115,200 baud at both ends it felt a lot better.

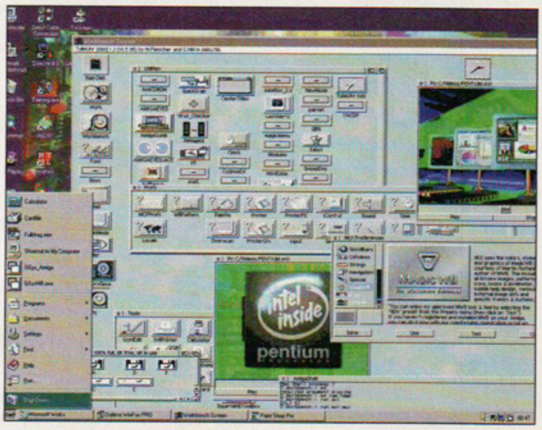
File sharing is simple enough to attract rivals on Aminet, such as *PC2Am*, though *Siamese* speeds things up substantially by allowing a direct SCSI connection between the machines, interfaces and geography permitting. This is even faster than Ethernet on large files and is supported by the budget version 2.1. This is reason enough to justify the purchase if you already own compatible hardware.

The retargeting of display and control from Amiga to PC is a much more difficult trick. It involves writing a complete simulation of low levels of the Amiga operating system for the PC, akin to 'Retargetable Graphics' but with many other complications, like the need to support PC displays, mice and keyboards in their almost infinite variations, and translate fundamental Amiga operations into 'packets' passed back and forth between the machines.

This communication uses a pair of serial ports in *Siamese* version 2.1 and that's the bottleneck between the systems. Serial ports are fine for control information like mouse co-ordinates and positions for lines and windows, but are slow for big icons and glacial for large data objects like animations, backdrops and images of all kinds.



Simple icons represent PC drives on your Amiga.



Siamese Amiga retargeting to Windows 95.

COMPATIBILITY

The PC world has been quick to adopt the disclaiming slogan of auto scammers, "Your mileage may vary", and with good reason. PC components are sold on the strength of superficial benchmarks which may mean little or nothing when you've assembled a loose collection of bits into something resembling a system. The baroque, opaque mass of Microsoft Windoze gums it all together, applying layers of software plaster to hide the cracks.

***Siamese* takes full advantage of later versions of Windoze to provide a consistent interface for information packets and requests from the Amiga. This works so well that you can run the *Siamese* code, without modification, on a DEC Alpha with a current copy of Windows NT. It may not be efficient (it isn't) but the Alpha has power to spare, even if it does dim your lights when you fire it up!**

Despite all this glue, some hardware combinations simply refuse to work in *Siamese* fashion. Most of the problems are at the PC end – MSDOS, Windows 3.11, NT 3.51 and earlier systems are too crude to support the required re-direction.

A minority of PC serial interfaces refuse to play the game, so a new version of the PC software has recently been released with the intention of solving this problem.

The cheap and nasty, but unfortunately common, S3 TRIO graphics card is not compatible with Siamese RTG, but this is a TRIO rather than an S3 problem – the current S3 ViRGE chip set, often built into PC motherboards or integrated via PCI, works very nicely, although ATI doesn't.

Amiga systems are relatively consistent, despite the difference of a factor of a hundred in performance between low and high-end systems, but they are endlessly extensible and configurable. Be alert for problems if you run a lot of hacks and enhancements on your Workbench.

As always with a major system extension, cut out all the WBStartup and user-startup magic at first, get things working, THEN add the bells and whistles back in once you're set up with a basic Amiga Workbench.

Known incompatibilities almost inevitably include MCP options and many screen hacks. Nothing may happen or there may be graphics corruption. *Siamese* itself installs *MagicMenu* and *NewIcons* patches to help with RTG. Standard Amiga menus don't retarget too well, so *MagicMenu* is used to tame their workings. *NewIcons* ensures Workbench icons look right on High Colour displays.

GLITCHES

Fortunately, most Amiga applications are fairly sparing with graphics and render quite quickly over the link. There was no noticeable delay in opening drawers on Workbench, although it took longer for the icons to come off the IDE drive than it took for them to squirt over the serial link.

The Locale prefs program's large map of the world took ages to send down the link. Other graphics-intensive programs will be just as unuseable.

Still, the map arrived eventually, so it should work fine over Ethernet. This is not just a *Siamese* limitation, though.

The Unix X Window System can also be retargeted over Ethernet and serial links. Serial X suffers from the same problem with large bitmaps.

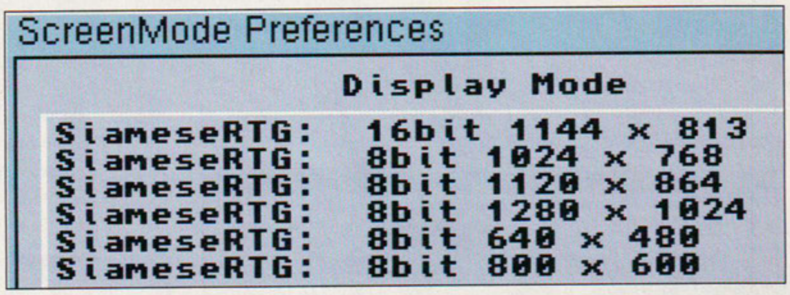
> **"Serial ports are fine for control information... but are slow for big icons and glacial for large data objects..."**

Siamese feels just as responsive as X, if not more so, and X manages to produce high performance graphics over Ethernet.

Emulation has gaps, though. When dragging icons on the Workbench, the icon disappears until it is dropped again. When selecting multiple icons with the drag-select box, ugly trails appeared as the outline was not being erased properly.

Viewing files by name sometimes caused the directory listing to clobber the right hand edge of the window.

Sometimes text disappears completely from a window too, leaving only the graphics. These can all be interpreted as being signs of imperfect Intuition emulation.



Extra RTG modes depend on your PC setup.

SCSI NETS

SCSI networking works by connecting the SCSI buses of two computers together. This involves running a cable from the SCSI port of the Amiga, through any external devices, into the PC's SCSI port. You must ensure that the Amiga and PC SCSI controllers have distinct SCSI IDs and that these differ from all your other SCSI devices.

Once this is done, both controllers can share the same devices. In principle, you can transfer files by saving them to the hard disk on one machine and then reading it off on the other, but in practice this can go wrong if done manually so it's safer to let *Siamese* (and *CrossDOS 6+*) do it for you, to guarantee your files transfer properly.

SCSI networking requires a controller that can share the bus with another controller, ruling out phase 5's Blizzard and Cyber-ports which are hard-wired to SCSI ID 7, and some of the nastiest PC SCSI or multi-IO cards. You can change the default ID on the internal interface of an A3000 or A4000T with Aminet's *SCSIPrefs*. Warp Engines and A4091s have their IDs set by configuration jumpers so they work fine.

Commodore's A2091 is also hard-wired to ID 7, but will co-exist with other controllers. It worked fine with a cheap and nasty Adaptec 1510 once the ID of that card was changed. Many cards bundled with SCSI scanners and CD drives appear to be equivalent to this Adaptec.

SCSI is a law unto itself and tying two machines' SCSI buses together can be tricky unless you are aware of the pitfalls. The SCSI link is only good for file transfers and print spooling and will not help the RTG at all.

OPTIONS

Which is best if you've got a PC and an Amiga: *Siamese* or *Amiga Forever*? It really depends on the relative speeds of your machines.

***Amiga Forever* demands a fast PC and networks happily with a humble A500 or A600.**

***Siamese* makes more demands on the Amiga and less on the PC side. If you own a fast 68030 Amiga or better, you gain more by boosting that than by networking to a PC.**

CONCLUSION

Siamese RTG is an impressive hack but you're not going to manage much high resolution or High Colour graphics work if data is only dribbling over a serial cable. Take *Siamese 2.1* to be proof of concept. You can test that the applications you want to use actually work over RTG before getting an Ethernet card and upgrading to version 2.5 for bearable speed.

If you just want fast bulk file transfers, the SCSI option in *Siamese 2.1* works well; otherwise *Siamese 2.1* is best seen as a 'taster' or a toy for hackers who see interoperability as an end in itself. Even over Ethernet, Siamese cannot compete with the raw speed of local Zorro graphics, but comparable PC video hardware is cheaper and buffers at the PC end minimise delays once data has been uploaded.

The full price of the *Siamese* software is reasonable in view of the performance boost and the extra expense of getting Ethernet, via Zorro or PCMCIA, at the Amiga end.

It's recommended if you're serious about getting real work done on the Amiga/PC combination.

Continued overleaf ➡

SIAMESE 2.1
SUPPLIED BY: Siamese Systems Limited (01525 211558)
http://www.siamese.co.uk
PRICE: £29.95
REQUIREMENTS: WB3, CD drive, Amiga, PC, serial cable.

OVERALL VERDICT: A neat hack, but needs Ethernet for serious graphics.

85%

Fusion 3.1 Vs ShapeShifter 3.9

Simon Goodwin tests the updated Mac emulation rivals.

The latest release of Blittersoft's Mac emulator *Fusion* is version 3.1, now selling for just £29.95. Upgrades cost only £7.95. After a year without an update, Christian Bauer's *ShapeShifter* has recently reached version 3.9. So what's changed since our head-to-head back in *AF104*?

> Version 3.1 only opens Amiga devices when the Mac calls for them, leaving ports free for use by Amiga programs...

FUSION 3.1

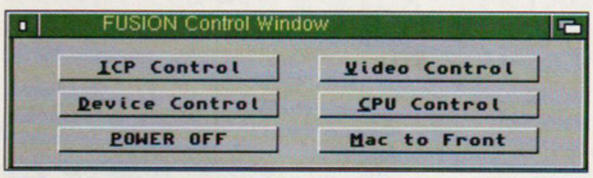
Support for 68060 systems is improved, with control over features like the Store Buffer, from *Fusion*'s Workbench control window. Apple never made real 68060 Macs so you may need to tweak these settings for full compatibility. Version 3 of *Fusion* is essential if you want to run Apple's OS 8.1, the latest release, on 68060 systems.



***Fusion* runs the latest Mac OS 8.1.**

Monitor handling has been refined and *Fusion* can simulate ejection and insertion of floppies in High Colour and True Colour modes. SCSI booting no longer requires an Emplant board. There's an optional delay of three seconds during startup, giving users time to press a key to disable the loading of 'extensions' while testing system patches.

Serial and parallel connections can now support add on boards, as well as unit 0, the old Amiga hardware. Version 3.1 of the software only opens Amiga devices when the Mac calls for them,



***Fusion 3.1* control windows are modal overlays.**

leaving ports free for use by Amiga programs in the meantime.

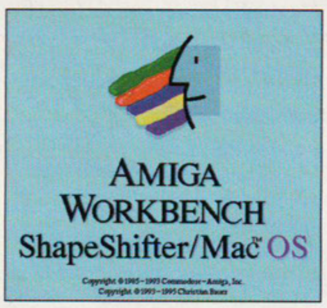
Minor tweaks improve performance with Retina and GVP SCSI boards, keyboard and CD support. New drivers on Microcode's Web page can make the Mac 'screen' a scaleable window on your Amiga Workbench, using the 'picture in picture' feature of Picasso IV and CyberVision, without the 'screen dragging' feature of CyberGraphX.

SHAPESHIFTER 3.9

Fictional shape shifters are chameleon-like, changing their form by acts of will. In the real world of the Amiga, Christian Bauer's *ShapeShifter* got stuck at version 3.8 for more than a year, while *Fusion* romped from version 1 to 3.1. At last, *ShapeShifter 3.9* has arrived. Has it caught up? Will we ever get to see version 4.0?

Version 3.9 improves CD-ROM, Ethernet and serial port performance. You can now boot from CD, which is currently the standard format for Apple system master disks. Unfortunately, this only works with System 7.6, as 7.5 master CDs are not bootable and *ShapeShifter* doesn't yet support versions 8.0 or 8.1.

On a 68K Amiga you don't miss much by sticking to version 7. Many of the improvements in System 8 are aimed at PPC systems and neither *Fusion* nor *ShapeShifter* are yet available for Amiga PPCs, though Herr Bauer has developed a PPC *ShapeShifter* to run under BeOS. *ShapeShifter* works with the early system 7.0.1 and 7.1, whereas *Fusion* rejects the former, downloadable from Apple's Website, and turned its nose up at 7.1 when I tried it.



Is this the best of both worlds?

ShapeShifter is Shareware, with registration priced at $40 – close to the new UK price of *Fusion* – or 50 DM, which is rather cheaper. For that you get a keyfile, only available by email. The unregistered version lacks support for CD-ROMs, hard disk partitions or other SCSI devices. It can use hard files but they're relatively slow, even if you add lots of buffers.

Graphics performance lags behind *Fusion*, especially on AGA, though you can close the gap by adding EVDs (External Video Drivers) to your *ShapeShifter* directory. File transfers to and from Amiga partitions are possible, using a MAC: device with access to the emulator's system disk, but *Fusion* can share multiple partitions and has sophisticated filetype recognition which simplifies transfers by adding information required by the Mac.


***ShapeShifter* lets you open all its setup windows at once.**

CONCLUSIONS

Like version 3.0, *Fusion 3.1* is an incremental update and most users will not notice much difference. It does fix some problems with particular Amiga configurations, which will justify the upgrade to many users.

Easily available at its new low price, *Fusion* must be cutting much of the market away from *ShapeShifter*. Version 3.9 doesn't quite close the performance gap, but the similarities outnumber the differences. Microcode Solutions are now busy finishing their PC version of *Fusion* and this may give Bauer the chance to catch up. The next battleground may be the release of PPC versions, but so far it seems that both developers have better things to do.



WEB CONTACTS

Apple OS 8.1: http://www.apple.com
Blittersoft: http://www.blittersoft.com
***Fusion* support:** http://www.ctaz.com/~msdei
***ShapeShifter*:** http://www.Uni-Mainz.DE/~bauec002

FUSION
Professional Macintosh Emulator

PRICE: £29.95

PROS AND CONS
- Superior Mac/Amiga file transfers
- Good High/True Colour on AGA
- Uses newer, better MacOS
- Virtual Memory possibilities
- Blittersoft retail support

84%

ShapeShifter
The Mac Emulator

PRICE: $40 / 50 DM

PROS AND CONS
- Try before you buy
- Better AmigaGuide
- Uses older, cheaper MacOS
- Ready-made hardfiles on Net
- SCSI 2 audio support

83%

The Eyetech Amiga Parts and Price Index
August 1998 issues

Interfaces and adapters - EZ-Key & DIY tower components

ADPT-EZKY	Amiga/PC k/b -> A1200 kbd ribbon cable	39.95
• ADPT-EZKY-A4K	A1200 EZKey/6p->5p adptr/A4000 kbd bundle	69.95
ADPT-EZKY-W95	Amiga/PC k/b->A1200 rib cab+Win95 kbd	49.95
ADPT-HD-2/3	2.5"/44way -> 3.5"/40w+4w & mtg bracket	11.95
ADPT-HD-3/5	3.5" Zip/SyQuest/FDD/HD brkt/pl ->5" bay	5.95
ADPT-KBD-5P6P	Amiga/PC k/b adapter 5p din-F ->6p m/d-M	5.95
ADPT-KBD-6P5P	Amiga/PC kbd adapter 6p mindin-F ->5pd-M	5.95
CAB-KBD-MF	5p DIN M - 5p DIN F k/b ex cable 1.2m	7.95
ADPT-DF0-FP	Tower faceplate adapter for A1200 int FD	6.95
ADPT-DF0-TWR	34-34 way cable and faceplate for DF0	12.95

Interfaces and adapters - A1200 ethernet

ADPT-ETH-BNCT	BNC T-piece 2xM + 1xF	4.95
ADPT-ETH-TERM	Ethernet BNC coax terminator 50R	4.95
ADPT-PCM-ETH-C	PCMCIA ethernet card with Amiga/PC drvrs	89.95
ADPT-PCM-ETH-H	Hydra PCMCIA ethernet card with Amiga drvrs	129.95
CAB-ETH-60C	Ethernet coax/BNC-F 60cm for Siamese	9.95
CAB-UPT-X60C	Crossed twisted pair/RJ45 for Sisys 60cm	6.95





Interfaces and adapters - Flickerfixers, VGA adapters, monitor leads

ADPT-VGA-SDSE	External Amiga s/doubler 23F-15M non-u/g-able	59.95
ADPT-VGA-SDBL2	External Amiga s/doubler 23F-15F upgradable	74.95
• ADPT-VGA-SDFF	External Amiga s/doubler with f/rfixer 23F-15F	119.95
ADPT-VGA-SDUG	SDBL2 to SD-flickerfixer u/g	50.00
• ADPT-VGA-INT	EZ-VGA internal A1200 s/doubler non-upgrad'le	59.95
ADPT-VGA-UNBF	Amiga 23 pin(f)-15 pin HD(f) VGA adapter	12.95
ADPT-VGA-15M23M	VGA 15pHD-M -> 23pD-M Amiga RGB adapter	14.95
ADPT-VGA-15M9F	Adapter from 15p HD-M VGA to 9pD-F	9.95
ADPT-VGA-9M15F	Monitor adapter 9p D-F to 15p HD-M	9.95
ADPT-VGA-AMON	Auto Amiga/CV643D m/sync monitor switch	39.95
ADPT-VGA-BUF	Amiga 23pin-F to 15pinHD-F VGA adapter	19.95

Interfaces and adapters - IDE/ATAPI, serial, parallel & floppy drive

INT-12C-DSKPL	DiskPlus FDD D/H/S dens i/t A1200clkport	69.95
INT-12I-EZCD4	Mk4 4-dev buf IDE i/f w/AIPU w/A1200 CD s/w	39.95
INT-12I-EZCD4/C	Mk4 4-dev buf IDE i/f w/3x40,2x44 13cm cabs	49.95
• INT-12I-EZCD4/CE	Mk4 4-dev buf IDE i/f w/3x40, 2x44cabs, EZIDE	59.95
• INT-12I-EZCDSE	Economy 4-dev buf IDE i/f w/A1200 CD s/w	24.95
• INT-12I-EZCDSE/C	Econ 4-dev buf IDE i/f w/3x40,2x44 13cm cabs	34.95
INT-12I-EZCDSE/CE	Econ 4-dev buf IDE i/f w/3x40, 2x44cabs, EZIDE	44.95
INT-4KI-CD4	4-device EIDE i/f for A4000 w/CDROM s/w	19.95
INT-FDD-DF0	Interface for std Sony FDD for DF0 880KB	14.95
INT-SER-PPL	PortPlus 2x 460kb ser + high speed par port	79.95
INT-SER-PTJR	PortJunior - 460KB serial i/f for A1200	39.95

Zorro 2/3 boards and adapters

ADPT-Z2-A12/1	A1200 ZII adapter with 1 ZII slot	99.95
ADPT-Z2-A12/7	A1200 ZII adapter w/ 7xZII + 5xISA slots	149.95
ADPT-Z2-A12/7/UG	A1200 ZII adapter 1->7 slot u/g (p/x)	79.95
GFX-Z2-CV/Z2-1	1-slot Z2 +C643D bundle without f/fixer	249.95
ADPT-VGA-AMON	Auto Amiga/CV643D m/sync monitor switch	39.95
CAB-VGA-10H15M	10p IDC-F header->VGA 15pHD-M for CV64-3D	9.95
GG2-Z2-BB	GG2 Zorro2 brigeboard for PC ISA periphs	119.95
GG2-ISA-ETH	NE2000 ISA ethernet card BNC for GG2-BB	19.95
GG2-ISA-MIO	Multi-I/O ISA card 2xIDE,2xSER,1xP	14.95
INT-Z2-PPL4	PortPlus4 - Zorro 4xSerial + expansn bus	89.95
INT-Z2-PPX	2xS +1xP expansion for INT-Z2-PPL3/4	59.95

Cables & cable adapters - audio & mains

CAB-AUD-CD	CDROM invt'd T audio cab .6m + 2xRCA plg	9.95
CAB-AUD-MIX	RCA(phono)-M -> RCA-M+RCA-F mix lead 1.8m	6.95
CAB-AUD-MJ/PH	3.5mm st minijack->2xphono-M plugs 1.2m	5.95
ADPT-AUD-RCA	RCA(phono)-M -> 2xRCA-F adapter	2.50
ADPT-AUD-RCA-G	RCA(phono)-M ->2xRCA-F gold plated adapt	3.50
CAB-IEC-1.5M	AC power cable 13A plug -> IEC skt 1.5m	2.95
CAB-IEC-4X13	AC powerstrip 1xIEC-M -> 4x13A-F mains skt	19.95
PLUG-IEC	Rewirable IEC monitor plg for PSUs/MT/DT	4.95

Cables & cable adapters - Serial, modem, phone, SCSI, printer

CAB-SER-EX2M	DB25-M -> DB25-F RS232 extn cab 2m	7.95
CAB-SER-EX50C	DB25-M -> DB25-F RS232 extn cab 0.5m	6.95
CAB-SER-NUL2M	Null modem cable w/ D9F & D25F at each end	9.95
CAB-SER-SSQ	9pDM->9pDF SurfSq EZTwr ser extn cab 50cm	9.95
ADPT-SER-25F9M	25p-F to 9pM serial RS232 adapter	4.95
ADPT-SER-25M9F	25p-M to 9pF serial RS232 adapter	4.95
CAB-BT-EX10	10m BT extn cable + 2 way phone adapter	9.95
CAB-BT-MOD	FCC684/6 to BT4 modem phone lead 1m	5.95
CAB-SCS-25/50	SCSI cable DB25-M -> Cent50-M 1m	9.95
CAB-SCS-25M/25M	SCSI cable DB25M-DB25M mac type	9.95
CAB-SCS-50M/50M	SCSI cable Centr50M->Centr50M 1m	9.95
CAB-PAR-FULL	Bidirectional printer cable all pins connected	9.95

Cables & cable adapters - VGA/k/b switchboxes & cables, Scart cables

ADPT-SW-S/K	Dual monitor & k/b switchbox	19.95
CAB-KBD-MM	5p DIN M - 5p DIN M k/b cable 1.2m	7.95
CAB-VGA-MF	15p DM-HD - 15p DF-HD VGA ext cable 2m	9.95
CAB-VGA-MM	15p DM-HD - 15p DM-HD VGA cable 2m	9.95
ADPT-SCAR-CMP	Amiga comp video (RCA)+2xAudio to SCART	12.95
ADPT-SCAR-RGB	Amiga 23p+2xRCA to RGB TV SCART + audio	12.95

Cables - HD, CDROM, floppy, clock port data and A1200 HD power

• CAB-PD-40F44F	2.5" (44F) to 3.5" (40F) data cab adapt for A1200	9.95
CAB-PD-2F	Power splitter floppy drive to hard drive + floppy	9.95
CAB-PD-30C	44->40way 3.5" HD data & pwr cabs -A1200	14.95
CAB-HD-KIT	A1200 full 3.5" hard drive fitting kit	24.95
CAB22-2W-9C	22way-Fx2 A1200 clock port cable 9cm o/a	5.00
CAB34-2W-50C	34way-F x2 FDD ribbon cable for tower	9.95
CAB40-2W-20C	40 way IDE cable 2 connector 20cm	5.00
CAB40-3W-1M	40Way IDE/HD/CD cable 3 contr 1m o/a len	9.95
CAB40-3W-60C	40w-F x3 HD/CD/IDE cable 20+40=60cm o/a	9.95
CAB40-CUST	Custom cable 3x40way IDE up to 1.5m	19.95
CAB40-DDC	A1200 IDE skt adptr 40F-40M with mtgs 15cm	9.95
CAB44-2W-13C	44way (2.5" HD) cable 2 cntr, 13cm o/a	9.95
CAB44-2W-60C	44way (2.5" HD) cable 2cntr, 60cm o/a	19.95
CAB44-3W-12C	44way (2.5" HD) cable 3 cntr, 12cm o/a	12.95
CAB44-3W-24C	44way (2.5" HD) 7+17cm,3 cntr,24cm o/a	14.95
CAB44-CD-13C	44way (2.5" HD) cable sold with CD/HD 13cm	6.00

Cables - HD, CDROM, floppy power splitters for tower systems

CABPW-1W-1F	Power converter cab HD-M -> FD-F	4.95
CABPW-2W-1H1F	HD/FD pwr splitter HD-M->1xHD-F/1xFD-F	6.95
CABPW-2W-2F	FDD power splitter 4pM->2xFD-F	6.95
CABPW-2W-2H	HD/CD pwr splitter 4p-M ->2x 4p-F 15cm	6.95
CABPW-3W-2H1F	HD/FD pwr splitter HD-M->2xHD-F/1xFD-F	8.95
CABPW-3W-3H	HD power splitter HD-M -> 3xHD-F	8.95
CAB-HD-PWXTN	4p-M -> 4p-F HD/CD power cab ext 0.9m	9.95
CAB-HD-FD/4	23p-M-floppy -> 4p-F HD/CD pwr 0.9m	9.95

CDROM systems including EZ-Tower & MT/DT bundles

• CD-CP-20X-SE	CDPlus-SE system 20 speed with CDROM s/w	99.95
• CD-CP-32X-SE	CDPlus-SE system 32 speed with CDROM s/w	119.95
CD-DT-20X	CDPlus Desktop 20 speed with CDROM s/w	119.95
CD-DT-32X	CDPlus Desktop 32 speed with CDROM s/w	139.95
• CD-FT-20X	CDPlus EZ-Tower 20 speed with CDROM s/w	189.95
CD-FT-32X	CDPlus EZ-Tower 32 speed with CDROM s/w	209.95
CD-MT-20X	CDPlus MiniTower 20 speed with CDROM s/w	119.95
CD-MT-32X	CDPlus MiniTower 32 speed with CDROM s/w	139.95
CD-PL-20X	CDPlus Gold system 20 speed w/ EZIDE s/w	149.95
CD-PL-32X	CDPlus Gold system 32 speed w/ EZIDE s/w	169.95
• ADPT-AUD-CDSE	CDPlus-SE A1200/CD audio mixr/adapter	19.95
ADPT-CDPL-PWR	CDPlus-Gold external power skt + HD pwrcab	9.95

CDWriter systems including EZ-Tower & MT/DT bundles

• CDR-UG-2x8	CDWriter 2/8x mech w/MakeCD for A4k,Twr	249.95
CDR-PL-2x8	External CDWriter Gold 2/8x w/MakeCD	339.95
CDR-DT-2x8	Desktop + CDWriter 2/8 speed w/MakeCD	299.95
• CDR-MT-2x8	MiniTower + CDWriter 2/8 speed w/MakeCD	299.95
CDR-FT-2x8	EZ-Tower + CDWriter 2/8 speed w/MakeCD	379.90
CDR-CDSE-UG	EZCD-SE+40+44way cabs+CDROMs/w w/CDR	20.00
CDR-CDM4-UG	EZCDMk4+40+44way cabs +EZIDE s/w w/CDR	30.00
CDR-DSK-10	Recordable CD media (WORM) 74 mins	19.95
DVR-MCD-TAO-P	MakeCD TAO (P) Amiga CD rec s/w w/ATAPI	38.95

EZ-Tower systems, MiniTower/Desktop cases & accessories

CASE-FT	Full PC tower, 250W PSU, modable for A1200	49.95
CASE-FT-1200	Full A1200 Tower 250WPSU,LED adpt,FD cab	99.95
CASE-FT-EXKT	EZ-Tower conversion kit - No PC tower	39.95
CASE-FT-KIT	EZTower kit w/ bkpnl for self conversion	79.95
CASE-FT-PLUS	Full A1200 EZTWR, EZKEY i/f, Win95 kbd	148.95
CASE-DT	Desktop case with 200W+ psu for HD/CDROM	39.95
CASE-MT	MiniTower case wth 200W+ psu for CD/HD	39.95
ADPT-AUD-EZTW	EZTwr audio mixr/adapter for A1200/CDROM	19.95
ADPT-SCSI-EZTW	EZTwr SCSI adpt 30cm 2xCent50F, 1xIDC50F	19.95
CAB-SER-SSQ	9pDM->9pDF SurfSq EZTwr ser extn cab 50cm	9.95

SVGA monitors - require scandoubler &/or f/f to use all Amiga modes

• MON-14-.28	14" SVGA 0.28DP 1024x768@60Hz - 3yrO.S.	129.95
MON-15-.28	15" SVGA 0.28DP 1024x768@60Hz - 3yrO.S.	169.95
MON-17-.28	17" SVGA 0.28DP 1280x1024@60Hz - 3yrO.S.	299.95
• MON-17-.26	17" mon 135MHz, 0.26DP 1600x1280@75Hz	399.95
ADPT-MON-SDSE	Ext s/doubler 23F-15M non-u/g-able w/ monitor	45.00
ADPT-MON-SDBL2	Ext s/doubler 23F-15F upgradable w/ monitor	50.00
ADPT-MON-SDFF	Ext s/doubler with f/rfixer 23F-15F w/ monitor	80.00
ADPT-MON-INT	Int EZ-VGA s/doubler non-upgrad'le w/ monitor	45.00

Digital cameras and Amiga digital camera software

• CAM-FUJ-DS7	Fuju DS9 cam, psu, LCD disp, mem crd w/ s/w	299.95
DVR-CAM-CAS	CamControl s/w for Casio QV10/100/300	39.95
DVR-CAM-FUJ	CamControl s/w for Fuji DS5/DS7	39.95
DVR-CAM-KOD	CamControl s/w for Kodak DC20/DC25	39.95
DVR-CAM-MIN	CamControl s/w for Minolta Dimage V	39.95
DVR-CAM-OLY	CamControl s/w for Olympus 420L/820L	39.95
INT-12I--PTJR-SP	PortJnr hi-speed ser i/f with CamControl s/w	30.00







Amiga CDROM, CDWriter, IDE/ATAPI, printer, scanner & video s/w

DVR-EZIDE	EIDE/ATAPI HD/CDROM/ZIP/LS120/SyQst drvr	34.95
DVR-EZIDE-CU	P/x upgrade to EZIDE from compet product	19.95
DVR-EZIDE-SP	EIDE/ATAPI enhancer/CDROM s/w bundle pri	16.95
DVR-EZIDE-UG	P/x upgrade to EZIDE from Eye-sup IDEfix	12.50
DVR-MKCDP	MakeCD(P,TAO) Amiga CD writing s/w	38.95
DVR-SQ3	ScanQuix3 w/ 1 Amiga scanner driver	59.95
DVR-PHS	PhotoScope UMAX-SCSI Amiga scanner driver	59.95
DVR-ENPR	EnPrint. Amiga printer dvr for pre 03/97 Epsons	9.95
DVR-TBPR6	TurboPrint 6.x Amiga printer driver English	38.95
ADPT-SQ3-PAR	SQ3 adapter Epson scanner->par prt cable	9.95
• SCN-FBA4-BDL2	UMAX award wiiner SCSI A4FB scanner w/ s/w	179.95

Hard & floppy drive, CDROM, LS120 & Zip mechanisms & cases

CD20-BARE	Bare 20 speed CDROM mechanism	44.95
• CD32-BARE	Bare 32 speed ATAPI CDROM mechanism	59.95
FDD-ITL-1200	Replacement A1200/600 int FDD 880KB	24.95
FDD-ITL-BARE	Bare 1.44/880 FDD for tower (needs i/f)	19.95
FDD-ITL-D/C/I	Twr int 880Kb FDD(Sony/EZDF0/cab bundle)	34.95
FDD-ITL-D/I	Twr intl 880Kb FDD (Sony/EZDF0) No cable	29.95
HD2-21	21MB 2.5" hard drive 90 days warranty	29.95
HD2-170	170MB 2.5" hard drive	69.95
HD2-540	540MB 2.5" Hard Drive	99.95
HD2-720	720MB 2.5" hard drive	109.95
HD2-1.4	1.4GB 2.5" hard drive for Amiga	149.95
HD2-1.8	1.8GB 2.5" Hard Drive	179.95
HD3-1.7	1.7GB 1" x 3.5" IDE drive for tower	99.95
HD3-2.1	2.11GB 1" x 3.5" IDE drive for tower	109.95
HD3-2.5	2.56GB 1" x 3.5" IDE drive for tower	129.95
HD3-2.56	2.564GB 3.5" InstantDrive for Amiga	199.95
HD3-3.2	3.2GB 1" x 3.5" IDE drive for tower	139.95
• HD3-4.3	4.3GB 1" x 3.5" IDE drive for tower	149.95
• HD3-LS120	Panasonic LS120 floppy/optical 1.4/120MB	79.95
HD3-LS120-CT1	Single 120 MB cartridge for LS120 drive	14.95
HD3-LS120-CT3	3-pack of 120MB (nominal) LS120 carts	34.95
HD3-ZIP-CT1	Single 100MB (nominal) Zip cartridge	14.95
HD3-ZIP-CT3	3-Pack of 100MB (nominal) Zip cartridges	34.95
• HD3-ZIP-IDE	Bare ATAPI/IDE Zip drive internal	79.95
CASE-ZIP	Metal slim case-FDD/IDEZip/SyQuest/LS120	9.95
CASE-HD-ECON	External 3.5" HD case no psu	19.95
CASE-HD-REM	Removeable drive case for 3.5" HD (metal)	24.95

Keyboards, mice, trackballs, PSU's, misc h/w & s/w

FAN-60MM	Cooling fan for A1200 60x60x25mm 5/12v	14.95
FAN-FG-60	Finger guard for 60mm cooling fan	4.95
FAN-LP	Low profile fan 45x45x11mm 12v w/heatink	9.95
KBD-A1000	A1000 keyboard with 6-pin mini-Din cntr	44.95
KBD-A1200	Replacement A1200 k/b w/ribbon cable	24.95
• KBD-A4000	A4000 keyboard with 6-pin mini-DIN plug	39.95
KBD-WIN95	Windows 95 keyboard with 5-pin AT DIN plug	19.95
MOD-EXT-14	Modem AT 14.4dat/14.4 fax+EU psu/tel cab	19.95
MOU-WHI	Amiga mouse - white/cream -with mousemat	6.95
• TKB-AM	Amiga trackball 3-button replaces std mouse	14.95
• PSU-100	100w PSU for Amiga (fit your old lead - inc cntrs)	29.95
PSU-230	230/250w replacement PSU for MT/DT/FT	29.95
PSU-A1200	A1200 23W PSU (original) 90 days warranty	19.95
• SPK-16W	16W PMPO speakers w/ PSU 3.5mm jack	10.95
• SPK-60W-INT	Internal mounting 60W PMPO speakers/amp	24.95
VID-CAM-COL	Colour videoconf camera composite video	129.95
VID-CAM-PSU	PSU for colour video camera	9.95
DISK-880	880KB blank diskettes duplication quality. Pk 50	14.50
NET-REF	Internet reference book	4.95
VID-CKT	Cocktel Amiga videoconferencing s/w	49.95

Accelerators - PowerPC with 680x0 co-processor

• ACC-PPC-16-4025	Bliz'd PPC603/160MHz+040/25/FPU/ no SCSI	248.95
• ACC-PPC-16-6050	Bliz'd PPC603/160MHz+060/50/FPU no SCSI	448.95
ACC-PPC-16S-4025	Bliz'd PPC603/160MHz+040/25/FPU/SCSI-2	298.95
ACC-PPC-16S-6050	Bliz'd PPC603/160MHz+060/50/FPU/SCSI-2	528.95
ACC-PPC-24-4025	Bliz'd PPC603/240MHz+040/25/FPU no SCSI	368.95
ACC-PPC-24-6050	Bliz'd PPC603/240MHz+060/50/FPU no SCSI	598.95
ACC-PPC-24S-4025	Bliz'd PPC603/240MHz+040/25/FPU/SCSI-2	418.95
ACC-PPC-24S-6050	Bliz'rd PPC603/240MHz+060/50/FPU/SCSI-2	648.95

Accelerators - Apollo 680xx

ACC-060-50	Apollo '060 MMU/FPU 50MHz A1200 accel	268.95
ACC-060-66	Apollo '060 MMU/FPU 66MHz A1200 accel	318.95
• ACC-040-25	Apollo '040 MMU/FPU 25MHz A1200 accel	128.95
ACC-040-33	Apollo '040 MMU/FPU 33MHz A1200 accel	158.95
ACC-040-40	Apollo '040 MMU/FPU 40MHz A1200 accel	188.95
ACC-30LC-25	Apollo 030/25MHz/MMU/FPU (8MBmax) accel	54.95
ACC-30LC-25+4	Apollo 030/25MHz/MMU/FPU + 4MB (max 8MB)	64.95
ACC-30LC-25+8	Apollo 030/25Mhz/MMU/FPU w/ 8MB (max)	74.95
ACC-30LC-33	Apollo 030/33MHz/MMU/FPU (8MBmax) accel	64.95
ACC-30LC-33+4	Apollo 030/33MHz/MMU/FPU w/4MB (8MBmax)	74.95
ACC-30LC-33+8	Apollo 030/33MHz/MMU/FPU w/8MB (max)	84.95
• ACC-30EC-33	Apollo 030EC/33MHz/noMMU/FPU (8MBmax)	44.95
ACC-30EC-33+4	Apollo 030EC/33MHz/noMMU/FPUw/4MB(8mx)	54.95
ACC-30EC-33+8	Apollo 030EC/33MHz/noMMU/FPU w/8MB (mx)	64.95
ACC-30EM-33	Apollo 030/33MHz/MMU no FPU (8MBmax)	54.95
ACC-30EM-33+4	Apollo 030/33MHz/MMU no FPU w/4MB(8max)	64.95
ACC-30EM-33+8	Apollo 030/33MHz/MMU no FPU w/8MB (max)	74.95
FPU-EC/M-33	33Mhz PLCC FPU pur'd with Apollo 30EC/30EM	10.00
ACC-630-33	Apollo '030 MMU/FPU 33MHz A600 acc to 32M	69.95
ACC-630-33+4	A600 accel 030/33MHz/MMU/FPU/4MB	79.95
ACC-630-33+8	A600 accel 030/33MHz/MMU/FPU/8MB	89.95
ACC-630-33+16	A600 accel 030/33MHz/MMU/FPU/16MB	99.95
• ACC-630-33+32	A600 accel 030/33MHz/MMU/FPU/32MB (max)	119.95

Memory - Simms, zip ram & FPU's

MEM-16MB-72P	72 pin 16MB 32 bit simm for Amiga	29.95
MEM-32MB-72P	72 pin 32 MB 32 bit simm for Amiga	49.95
MEM-4MB-72P	72 pin 4MB 32 bit simm 70 ns	9.95
MEM-8MB-72P	72 pin 8MB 32 bit simm for Amiga	19.95
MEM-ZIP-20P	1MB(2chip)60ns Zip RAM HMS514400-6 Pg md	14.95
FPU-PGA-40	MC68882 PGA FPU 40MHz OK for 50MHZ	29.95
FPU-PLCC-33	MC68882 PLCC FPU 33MHz	19.95
PT-EXT-PLCC	PLCC extractor tool for 33Mhz FPU	9.95
ACC-4/60-SSKT	Apollo 1240/60 2nd simm socket & fitting	20.00

WB disks, k/s ROMS, manuals etc

SYS-WB3-DSK	Amiga WB3.0 disksx5 + Eyetech HD install	14.95
SYS-WB3-SET	Amiga WB3.0 disks x5 + Worbench manual	18.95
SYS-WB3.1-DSK	Amiga Workbench3.1 disks x6 (/w HD inst)	14.95
• SYS-KS3.1-ROM	A1200 Kickstart 3.1 ROM chips (2 chips)	29.95
• SYS-KS3.1-SET	A1200 K/s 3.1 ROMs & WB3.1 dskx6 (no books)	39.95

EZPC-Tower & Siamese systems & components

CDR-BARE-2/8-SP	Internal ATAPI CD-R 2xw 8x u/g with EZPC pkg	199.95
• EZPC-SIA-CF3	EZPC SiSys/Ene/t3.2/64/32x/32v/mpeg/A4scnr	999.95
EZPC-SIA-CF3-UG	EZTower/EZKey/kbd u/g to EZPC-SIA-CF2	879.95
PSW-W95/SS97	Windows 95 & Lotus Smartsuite 97 bundle	99.95
SCAN-SCEX-6KSP	Mustek ScanExpress 6000SP w/PC SCSI card	99.95
SYS-NETPC	Network PC Amiga-PC network s/w	19.95
SYS-SIA-ETH	Siamese sys2.5 w/PC,Amiga ethernet	189.95
SYS-SIA-R25	Siamese system software RTG v2.5	99.95
• SYS-TCP-SIA	Miami TCP/IP stack for Amiga (Siamese only)	19.95
SYS-TCP-MIA	Miami TCP/IP stack for Amiga (reg'n fee paid)	24.95

CD32, SX32 & accessories

ADPT-KBD-SX32P	SX32 Pro PC k/b adapter cable 10cm	9.95
CD32-JOY	CD32/SX32 joypad	9.95
CD32-PAL	CD32 console with 18Wpsu/joypad/RF lead	149.95
SX32-MK2	SX32 Mk2 Ram/Clock/FPU expander for CD32	149.95
SX32-P40EC	SX32Pro030EC 40Mhz simm to 64MB, FPU skt	199.95
SX32-P50	SX32 Pro 50MHz '030/MMU Simm, FPU skt	269.95

A1200 Magic Packs & accessories

• A12-MGK-FDD	A1200 Magic pack FDD vers /w s/w as advt	189.95
A12-MGK-HD170	Amiga Magic pack w/170 HD & s/w	249.95
• A12-MGK-MTCD	Amiga M P 20xCD/1.7GB/'040-25/16MB/MT	599.95
A12-MGK-PDV2	A1200 Mgk pk 170MB/'030-33/8MB	329.95
A12-MGK-PDTW2	A1200 Mgk pk 170MB/'030-33/8MB & EZTW+	449.95
A12-MGK-PRO2	A12 EZTwr Pro2 '040-33/32mb/3.2/PCkb/20CD	799.95
HD3-LS120-SP	LS120 120/1.44/.72MB with A12-MGK-PRO2	79.95

Workshop services

FIT-EZ-MAIN	A1200 to EZ-Tower fitting - A1200 +1 drive	30.00
FIT-EZ-XTRA	Fitting per customer-supplied periph into EZtwr	7.50
REP-AM-2B/1D4	A1200 motherboard rev 2B or 1D4 fix	30.00

Eyetech Group Ltd
The Old Bank, 12 West Green,
Stokesley, N Yorks, TS9 5BB, UK

Tel : 07000 4 AMIGA 07000 4 26442 +44 (0) 1642 713 185
Fax: +44 (0) 1642 713 634
Net: sales, info @eyetech.co.uk www.eyetech.co.uk

UK next day insured delivery charges: S/w, cables, EZCD i/f £3; 2.5" drives, accel's; manuals £7; 3.5" drives, FDD's; PSU's, SX32 £9; CDPlus; M'Twr; D'top £11; EZTW & EZPC £15. **Worldwide in 2-7 days from receipt of faxed order & payment details.**

UK bank/BS cheques, Visa*, Mastercard*, Switch, Delta, Connect, Postal/Money orders accepted. * A 3% charge applies to c/c orders.Due to space limitations some of the specs given are indicitive only - please ring/write for further details. **Please check prices, specs and availability before ordering. If ordering by post please include a contact phone no.** Goods are not supplied on a trial basis. A1200 items are tested with a Rev 1.D.1 motherboard - other boards may need modification.E&OE. All prices include VAT at 17.5%. Non-EC is VAT-free.

Voted AUI Amiga Company of the Year

EYETECH

Waiting for the great

David Taylor reveals the likely direction that the next AmigaOS will take. What will the next generation machine be able to deliver that simply isn't available anywhere today?

When you take a tour of the web and newsgroups you'll see all manner of rumours for the next Amiga, but a bit of deductive reasoning can give you quite a clear idea of the direction that will be taken.

The Amiga has always been a strong graphics machine and only the demise of Commodore has let the PC accelerate away through the prolific generation of ever faster graphics hardware. It seems likely therefore that the Amiga will want to recapture this ground and build on its strongest area in video editing, multimedia, rendering and other graphic intensive areas.

Even these days, few PC users can afford to even consider video editing as it entails costly hardware and software, while Amiga users have been able to afford mid-level editing for years. It seems unlikely that Amiga Inc. will be looking to develop an entire new OS from scratch, and trying to build on the existing Workbench code would not deliver an OS advanced enough to devastate the competition.

However, it is also unlikely that an out-of-the-box solution will be used either because this would not provide any of the individuality or advances that are expected. What remains are three possibilities for basic code on which the actual OS will be built.

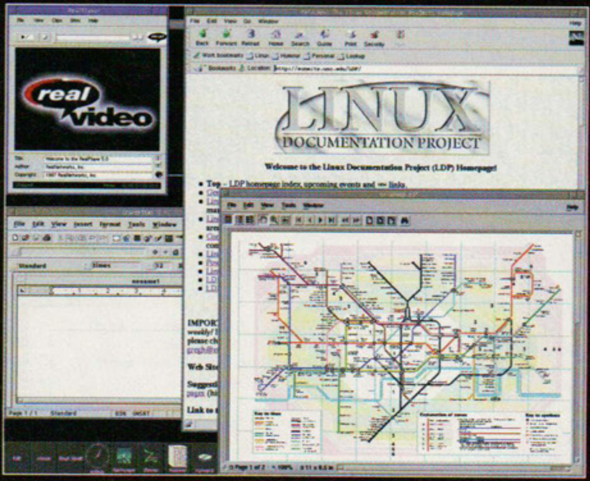
> "... if BeOS is selected then to not produce a multi-processor machine would be to castrate its most powerful feature."

AVOIDING THE TITANIC

The first is a Linux-based machine. Linux is best known as the free OS because it is not owned by a commercial company. Instead, it has been developed by multiple programmers around the world. The source code is available freely and has been adapted by so many people that it can run on almost any hardware. There are versions of Linux for every platform – the Amiga has one, as does the x86 (PC) and the Mac.

The GUI part of Linux can be supplied by any number of different file/program manager interfaces that have been written, so there is no standard look to Linux. However, there are several reasons why this doesn't seem like a likely route.

The first is that while Linux is flexible, it is a complex operating system based on Unix. This means every GUI operation is interpreted to a command line. While power users love to avoid GUIs, finding them unnecessary and time consuming, mainstream users like to be protected from Shells as much as possible.



The Linux OS is a very competent one, but is not likely to be chosen because there are already Linux machines planned by other companies.

Linux has been used by companies for impressive projects like the human gene mapping project, the CGI effects used in Titanic, etc, but it is not something that really fits the idea of the graphics expectations of the next OS.

Another reason for avoiding Linux is the fact that it is already available in so many versions that simply building a machine with the Linux kernel and a new GUI would probably not generate that much interest. Corel Computers, the subsidiary of the famous PC software company responsible for *CorelDRAW* and *WordPerfect*, has also announced that it is releasing a set of computers that will run Linux as their OS, which will mean that powerful server and client machines running a Linux variant will already have been brought onto the market. This would make the Amiga look a little too much like a late-arriving marginal clone.



BeOS uses Tracker as its central user interface resource. From it, you can open any window or application. A more advanced version of the Windows 95 Start menu.

CAFFEINE FREE

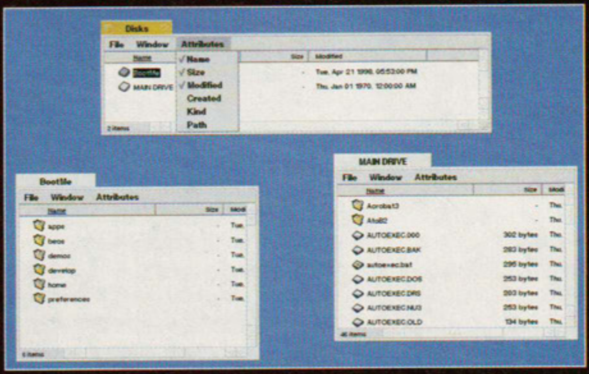
The next possibility is some implementation of a Java-based OS. Java is the hot topic in computing. In its pure form it allows code to be written but not compiled. The machine that wishes to run the code then compiles the code in real-time to run the application (what is known as Just In Time Compilation).

The advantage of this is the cross-platform use of code. It only has to be written once and can then be used on any OS on any machine that has a Java virtual machine (JVM). However, there are some obstacles.

The first is that a machine running only Java code is not that attractive to anyone other than businesses who need cheap machines to run their own bespoke or low end programs. As applications have to be compiled by the machine it reduces their speed, so not having any native applications or any compiled elements would mean an unnecessarily slower machine that would contradict the stated aims of Amiga Inc. and common sense.

The second is that because Java is cross platform, there are already many machines that can run the Java code so a new Amiga Java machine would have no

leap *forward*



BeOS has a single point for keeping the drives mounted together, imaginatively called Disks. This is very much the My Computer idea from Windows 95.

unique selling point. Also, with few Java programs currently available, despite all the hype, it wouldn't be able to offer much, especially the classic Amiga emulation expected.

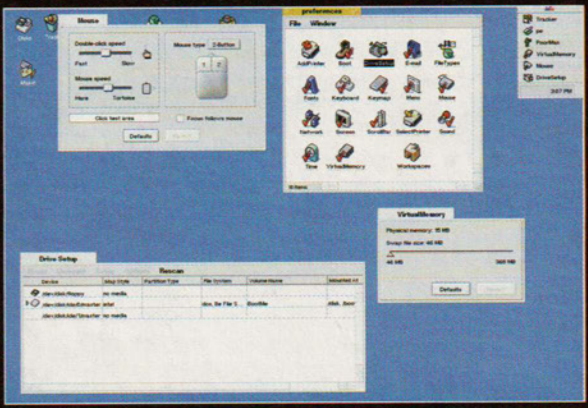
The future of Java is by no means certain either, as Microsoft are setting out to re-write the rules and make Java their own. Their Java development system, Visual J++, is designed to produce Windows-specific applications, and few Java development systems create pure Java. This is much to the annoyance of Sun who are currently taking Microsoft to court over their use of the Java compliant logo.

While some Java capacity is essential in today's Internet world, creating a Java-only machine would be putting all the Amiga's eggs in a rather precarious basket, so it seems more likely that Java will be implemented as an additional layer of the OS.

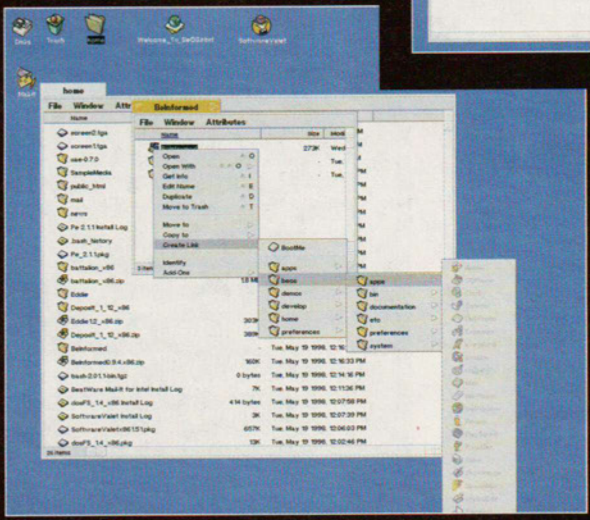
BEBOX BA-LU-LA, SHE'S OUR BABY

This leaves the most likely base for the next OS, a variant based on Be Software's self-styled "media OS", BeOS. It has been confirmed as a possibility by both Amiga Inc. and Be, who are currently "talking" to each other. BeOS has been in development for years but was first shown to the world back in 1996 in a custom-made machine called the BeBox. A year later the OS had been ported to the Mac and this year it finally made its initial appearance on the PC.

So far it has not made any inroads into the mainstream, but Be have modest expectations of it. They do not expect it to be used instead of Windows, rather as a companion to it. There are several reasons for this, one of which is the fact that there aren't yet any sophisticated applications under BeOS that people would use every day. It's unrealistic to expect people to use an OS where they can't do much.



The Preferences part of the BeOS GUI is its weakness and is very sparse. That is one of the reasons why a future Amiga would have a new GUI designed for it.



Right clicking on a file allows you to choose from the extensive file management options on a pop-up menu, including full copying or aliasing through a menu item.

Also, the hardware support on the PC is very lacking, but if BeOS were to be re-engineered for a specific Amiga then this would not be an issue. Finally, they do not have the muscle to take on Microsoft. In fact, there were strong rumours that Microsoft would buy the company last year, although this never actually came about.

The real remaining question is what part of BeOS would be used in a future Amiga as it certainly won't be a straight port using the OS as it is. This would not allow Amiga Inc. to build in their ideas, nor leave anything of the Amiga in there, except for the name.

More importantly from a business perspective, it's also already been tried – this is exactly what the BeBox was. Like any OS, BeOS is built of layers – the Amiga works upwards from the Kickstart ROMs through Workbench to the layer which sits on top in every OS, the applications.

As with Linux, Windows, etc, the core at the very lowest level in BeOS is its kernel. On top of this sits a set of servers for networking, printing, servicing applications, audio, etc.

The final layer is the software kit which incorporates the GUI that most people think of as the OS because it is the part they interact with. Applications then sit on top of this.

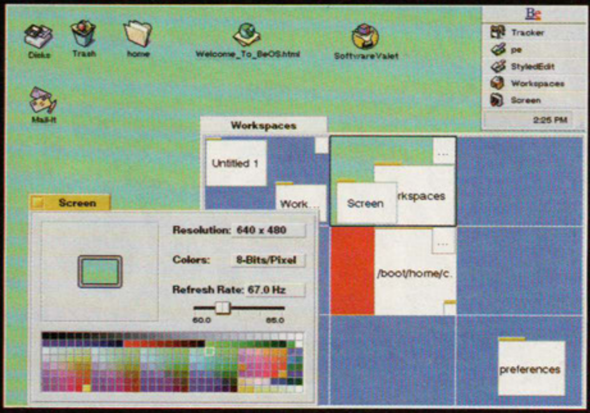
TO BE OR NOT TO BE

Of all the areas within BeOS, two remain uncompleted. The first is the hardware support which is crippling on the PC, but as discussed, is not an issue for the Amiga. The second is the GUI. At first glance it seems likely to borrow heavily from the Mac, focused on a single button mouse, with the look and feel of the windows.

This is a misconception though, born out of the fact that the OS was ported to work on a Mac and has not yet been finished on the PC, despite the fact it is on sale. BeOS does actually have some of the superficial look and feel of the Mac, but has a stronger resemblance to X-Windows under Linux. It was built using the same libraries that were used for one of the Linux GUIs.

There is a Shell in BeOS which is an implementation of BASh (Bourne-Again Shell) which supplies Unix command line capabilities, allowing the user to do anything within the OS from the Shell that can be done through the GUI. This is completely alien to Mac users, partly possible on Amigas but completely natural to Unix-variant users.

Continued overleaf ➡



The virtual screen management is truly excellent and allows you to have different programs running and working in screens with different resolutions at different screen depths. Sound familiar?

Indeed, there is a Posix integration layer that allows Posix compatible code to be ported and compiled as-is to BeOS to add additional commands to the Shell. The heart of the GUI lies in the windows which operate using the same metaphor we've all become accustomed to.

A single "Disks" icon hides all mounted volumes (an implementation of the Windows 95 My Computer idea), and then all files are stored in a directory hierarchy.

As you'd expect, you can open directories in different windows, display them using different methods (large icons, small, text, etc) and control the files from menus shown on each window (slightly different to the Amiga and Mac, but identical to Windows).

Other conventions used include a single place where commands are placed so the Shell can find them (the C: directory, in effect), a folder where all user data is stored by default to keep it separate from the OS, and likewise, a single folder where applications are installed to keep them together.

There is also a Shell script that is executed at startup and can load applications or execute commands as you define (the S:user-startup file parallel). This is more of an artefact from the Unix influence because the Amiga and Windows systems both have a way of doing this through the GUI, by placing the program in a special directory (WBStartup).

THE SILENT TYPE

Where the Amiga uses Icon Information to store the tooltypes and default application to load a data file so that you can just double click on a picture or a document to load it, BeOS uses MIME. MIME originates from the Internet where it is used to identify file types. With it, you can define what application should be loaded when a file type is double clicked.

This is more efficient than the current Amiga method which requires each file to have a default tool set.

BeOS also has a messaging/scripting feature and something called Replicator. These all use a system called Bmessage, and one way or another they all allow the interaction of programs.

The messaging part is like ARexx so you can control programs from the OS or from other programs. The Replicator feature allows the use of code from one program in another.

In Windows there is a similar implementation called OLE (object-linking) though it has never been widely used. Replicator allows you to pick up a window from one program and drop it into another where it becomes a part of that program or project.

For example you could put a video project into a document and then edit the video in the document in your word processor, using the features from the original video editor.

> "Essentially, the 64-bit system means that you can connect single volumes with terrabytes of capacity..."

TCP/IP is built into the OS so that networking is simply a case of adding a card and entering your address and password. You can then use a network for accessing servers running http or ftp services. PPP is also included so that dial up access is available.

In all honesty, although BeOS is flagged as Internet ready, this is not as important to businesses as network capabilities. You have to be able to share resources between machines and see and access other machines' drives remotely. Telnet allows control of the BeOS remotely, but sharing data is only possible using the ftp server that comes as part of the OS. Some sort of peer-to-peer networking is needed.

A big advantage BeOS has going down this road is the capacity to have file systems added. The OS itself uses a proprietary 64-bit file system. This gets around various technical limits on capacity, though Windows 95 has also worked around the 4Gb limit that is often quoted.

Essentially, the 64-bit system means that you can connect single volumes with terrabytes of capacity (not that any exist yet – 8Gb is about the biggest). While these amounts seem ridiculous, some companies need them and a media focused OS, as the Amiga will be, will require this sort of volume.

BeOS can also read Mac partitions and, with a third party plug-in, (incorporated in the soon to be released r3.1) MS-DOS/Windows volumes. This approach means that it could also be quickly made to recognise and read Classic Amiga volumes.

The file system also uses journaling so that a constant track of changes made to the volume is kept, which speeds up recovery in times of data loss or lock up. This stops the problem of the disk validating time that occurs on the Amiga after certain crashes. It's also important with regard to the virtual memory, more of which later.

TWO'S BETTER THAN ONE

The two most compelling features are symmetric multi-processing and pervasive multi-threading. It all sounds very flash and that's because it is. These two features are miles ahead of any other OS and show what can be done when an OS is engineered from scratch today, without all the baggage of backwards compatibility.

The two elements go hand in hand. Symmetric multi-processing means that the machine can use multiple processors for parallel processing. Only a few mainstream boards offer the feature to add two processors and the idea of having more in a home machine is rarely discussed. This is because processors have traditionally been expensive and because the world's most popular OS doesn't support it; only its higher end sibling Windows NT does, and even then it doesn't do so fully.

You may think that adding a second, third or even tenth processor simply multiplies the speed of the machine, but this is not the case. When programs are executed they run a set of threads. Threads are parts of an application – think of them as mini applications. For example, one thread may draw the

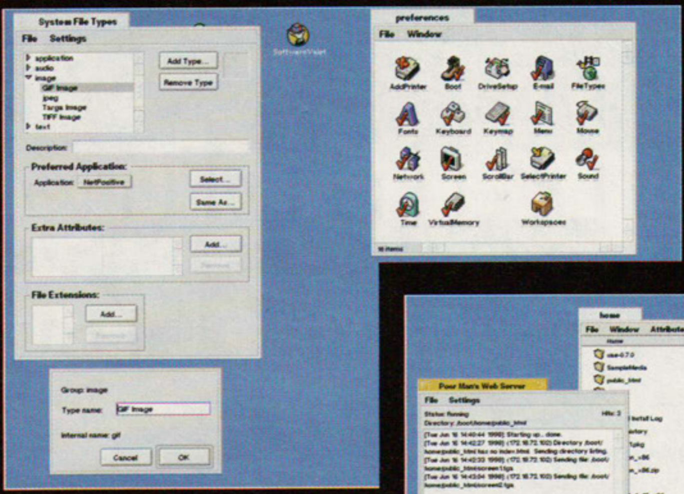
AN OPEN ARCHITECTURE FOR GRAPHICS

Perhaps of use to potential killer app developers, BeOS includes OpenGL support direct from the OS. This allows programs to use Direct3D rendering using the OpenGL library. OpenGL was going to be the industry standard to be used by 3D cards for rendering, but many proprietary systems have sprung up and Microsoft's Direct3D is more widely supported and on the up.

The inclusion of OpenGL might not be important to the Amiga, but the way it has been implemented may be. Direct3D and DirectX are designed specifically to take care of calls to the graphics hardware so that programmers don't go directly to it.

Be has decided to let programmers address the graphics hardware directly should they need to so, in order for the very best performance to be achieved. This is fine if the Amiga comes with specific hardware, but if multiple graphics cards are possible then this could cause problems.

This does allow the OS to make use of specialist graphics co-processors though, which put graphics performance through the roof. As we have all read the specs that Amiga Inc. have released regarding the graphic capabilities of the hardware they will be using, it seems very likely that they will be using some rather unique graphics hardware, and letting programmers exploit it will probably be as important as it was to the Amiga in its infancy.



File type actions – launching a program to load a specific file type (GIF, doc, etc) – are dealt with using the same MIME coding used on the Internet.

window, another the menus, another takes care of disk access, etc.

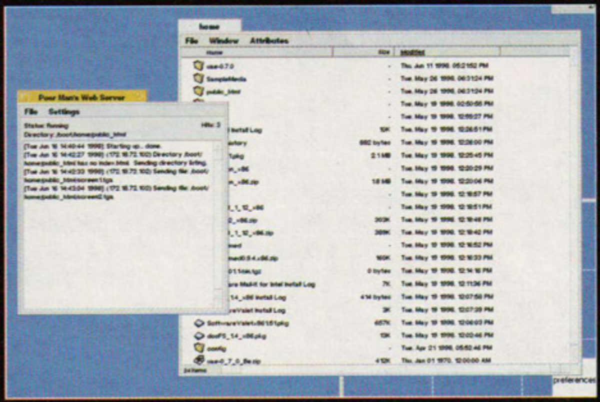
Older programs are designed for single processor machines and so are linear and single threaded. In other words, the program does one task and then moves on to the next. If you add a processor to a machine where software works like this, the single thread is not speeded up at all because it can only use one processor at once. You do get a system-wide performance increase because you may be multi-tasking, but the overall speed increase may not be worth the extra processor.

BeOS is completely different. From the ground up it has pervasive multi-threading, which means that all the parts of the OS are split down into threads so they can be executed in parallel. Because of this, it is extremely hard for application developers not to create multi-threaded applications too.

This is because the OS will take care of some things, like window drawing, so hey presto, it's automatically multi-threaded. BeOS can work on single processor machines and the multi-threading still helps with system performance because, for example, a single thread can't tie up the processor and stop the mouse from responding. All of this ties in with the pre-emptive multi-tasking, for fast task switching, that Amiga owners have always had but which PC owners still don't. The multi-threading is also vital to the Replicator so certain tasks from one program can be used in others.

DUAL PROCESSORS

The symmetric part of the multi-processing refers to the fact that any thread can be executed on any processor. There is no need, as there is on other multi-processor platforms, for certain OS threads to be executed on a "primary" processor. In fact, you can actually turn processors on and off within BeOS without any problems or re-booting. The result is that a two processor machine is twice as fast as a single processor machine. Amiga Inc. have not actually announced any plans concerning multi-processor machines, but the speed claims they have made seem to make it extremely likely. In fact, if BeOS is selected, then to not produce a multi-processor machine would be to castrate its most powerful feature.



BeOS is built with the Internet in mind. It has TCP/IP built in and can allow your machine to be an FTP or HTTP server, thanks to a simple bundled applications.

It also does not make business sense. The cost of the fastest chip available, the 400Mhz PII, is approaching double that of the slower 300Mhz PII. For the same price you could produce a machine that has double the power of a 300Mhz, as long as the OS has symmetric multi-processing. Amiga Inc. aren't looking at Intel chips, but the same principle stands and various combinations of processors can generate a machine that leaves current desktops eating dust.

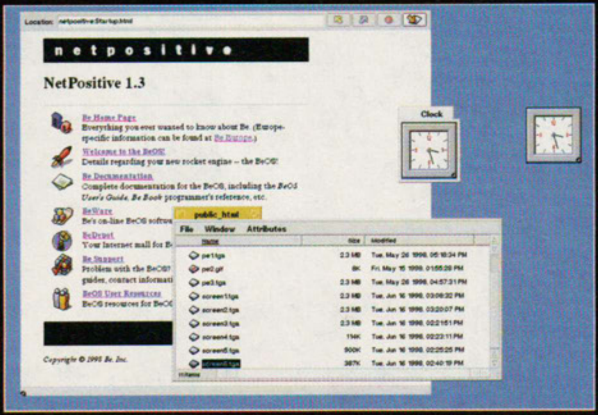
CARRYING PROTECTION

The BeOS system works with memory in two important ways too. The first is protected memory, which ensures that if one application crashes, it doesn't bring the system down – only that single application. Goodbye to the guru.

The next is virtual memory, where the OS uses physical RAM as much as possible but swaps data not in use to a hard disk file. This keeps applications running quickly but means that you are not limited by the amount of RAM.

This is standard on other OSes and there is VMM on the Amiga, but the Amiga is not built for virtual memory and a system crash when using it may cause disk validation problems.

BeOS has many other features like Unicode for international letters and anti-aliasing, but these are all peripheral to its core features and attraction and may or may not be adopted by the Amiga. Of the GUI and mid-level systems, it seems likely that an AmigaOS would ditch much of the look and feel of the Be GUI – frankly, it's really more of a mish-mash of other systems instead of a proper innovation.



The Replicator parts, like messaging and scripting, are dealt with by Bmessage and allow code threads to be added to other parts or programs. Here a browser and clock are part of the actual desktop (the small hand icon on the program shows it is a replicant) and yet they are both still fully featured and functioning.

THINGS TO KEEP

The Replicator, BASh Shell, TCP/IP, MIME and expandable file system seem like the best elements to be kept. The hardware support issue shouldn't be a problem because BeOS can be written to run on that specific hardware, whether that includes DVD or something not even invented.

Like Windows too, additional hardware drivers can be added thanks to the extremely easy expandability of the OS, something the Amiga hasn't actually managed yet as far as the hardware is concerned.

In fact, because the PC version has such poor hardware support, people have already started writing their own drivers. It is the bottom layer, the kernel, that is going to be the best base on which to build up a new version and the multi-tasking, multi-threading, virtual and protected memory harness the best features of current OSes and add something completely new.

As to the classic Amiga, UAE (the Amiga emulator) has been ported to BeOS already by Christian Bauer, the person who brought Mac emulation to the Amiga with *ShapeShifter*. Some sort of software emulation along those lines would not be hampered by poor performance if the machine had the processing power that BeOS could provide. With BeOS applications also starting to appear, the new Amiga wouldn't have a standing start.

What would be needed is a better GUI and additional features like fully integrated Java support, which would make it considerably better than a Java-only machine and which would also make the Amiga attractive as a Java solution should it become the preferred programming language.

While the other two options can't be completely dismissed out of hand, BeOS seems to offer a way forward that could be as revolutionary as the first Amiga was. Time will tell if our predictions are accurate.

If you want any more information on BeOS, check out their Website at http://www.be.com which contains many documents, including a full, online version of the BeBook, which has everything you could possibly want to know.

PIC Programming

Connect a brand new keyboard to your Amiga, with **Nick Veitch** and a chip.

AFCD29:-In_the_mag-/PIC ON THIS MONTH'S CD

Amiga keyboards are very nice. I much prefer the action on the A4000 keyboard over any of the other keyboards I have used, but for many reasons, you may not want to use your Amiga keyboard any more.

It may be that your original one is broken (and replacements are expensive), that you have relocated your A1200 into a tower or that you just prefer using a PC-style keyboard.

> "If you are connecting the board directly to an A1200, you need to make some connections to the keyboard..."

Whatever the reason, you can connect a standard, cheap AT or Windows-style keyboard to your Amiga, with a little help from some hardware based around the PIC chip. There are commercial versions around but building the interface yourself will save you money (it'll cost around £10) and fill your life with excitement and adventure to boot. All you need is the *Epic* software by Steve Marsden, which includes this example project. You'll find it on the CD or on Aminet in the hard/hack drawer. Unfortunately, the listing is just too long to repeat here.



It's small, fast and cheap. Find your own comparisons...

BUILDING THE HARDWARE

The hardware itself is very simple. All you need is a small bit of stripboard to put the PIC and its support components on, and a few connectors. The rest is all handled by the PIC itself.

In fact, as you can see from figure 1, the PIC doesn't even need many support components. As its outputs are capable of driving TTL signals on their own, the board is mercifully free of little transistors cluttering up the place.

All that is required is an oscillator to drive the PIC. The oscillator provides a series of pulses which the PIC chip uses as its clock signal. Each time it receives a pulse it executes the next instruction from its program memory.

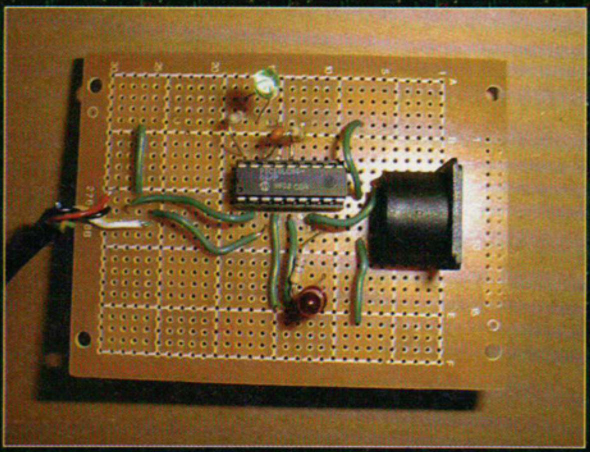
The PIC supports the use of a cheap RC oscillator. This is literally just a resistor and capacitor connected between the power lines and the oscillator pin on the PIC. The resistor allows current through to charge up the capacitor until there is enough stored charge to register as a TTL high signal. When this happens, the current flows through the oscillator input, clocking the PIC, and the process starts again.

While this is a cheap way of providing an oscillator, it is not terribly reliable. Since this circuit is intended for use in a high speed and "noisy" environment, you should consider using a crystal oscillator.

You may also want to box this project to protect it from accidental damage. In any case, you simply have to make the external connections shown in figure 1. Big box Amigas will supply the power required. If you are connecting this project to an A1200, you will either need an external, regulated 5V supply, or more usefully, take 5V from the floppy power connector inside the A1200.

THE KEYBOARD CONNECTORS

All AT keyboards use a standard 5-pin DIN plug. Connecting to them is easy and is best done using a PCB mounting socket which can then be mounted directly on your stripboard. The connections are shown in figure 2.



Our prototype board. The cable on the left leads off to an A4000. Ignore the LEDs, they were just for testing purposes.

Windows keyboards use the Devil's own mini DIN plugs. Once again, the best way to connect these is with a PCB mounting socket. The pinouts are given in figure 3.

Connecting the board to the Amiga is a different matter. The best way to do it for big box Amigas is to use an appropriate plug (5-pin DIN or 6-pin mini DIN) with a length of cable attached. You need to solder the cable end directly to the PIC board. The pinouts for both of these are given in figures 4 and 5 respectively.

If you are connecting the board directly to an A1200, you need to make some connections to the keyboard controller (8520), marked as U7 on the board. Unfortunately, the best way to make these connections is to solder directly onto the legs of this chip, although it is possible to use an upended socket to reduce the risk of damage.

Only attempt to do this if you're sure you know what you're doing. The clock line is pin 43 and should be connected in series with a 330 Ohm resistor. The Clock line is pin 44 and should be connected in series with a 47 Ohm resistor. You can also solder the reset line from the PIC to pin 37.

PROGRAMMING THE PIC

The program for this circuit is included with Steve Marsden's *Epic 1.2*, and a few other Pic programming software packages. The file you want is called IBMKEY25.HEX. Then you can simply use the command: pp ibmkey25.hex with Nick Waterman's *AmigaPP* software and a suitable programmer (like the one we built last month).

The default settings will work fine unless you are using a crystal oscillator, in which case you will have to set the -x parameter when programming.

Once the PIC has been programmed, you can slip it into the socket on the stripboard. It makes sense to socket the PIC in case you ever want to re-program it.

USING THE KEYBOARD

When you turn the Amiga on with the keyboard attached, the lights on the keyboard will flash on power up, indicating that all is well. In order to

change the settings of the PIC program, go to a text editor and type * from the numeric keypad twenty times. A text message will appear on the screen which will allow you to choose your keyboard type.

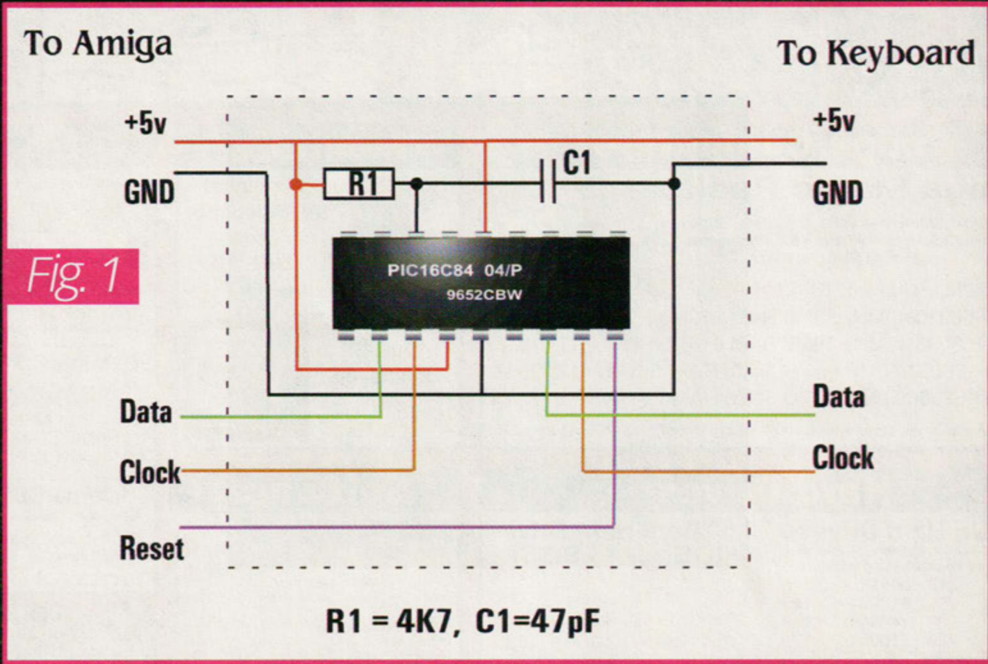
Some keymaps are included with the original software, which you can set up through the *Input Prefs* program. If you just get a load of quotation marks on the screen then the Data and Clock connections to the Amiga are the wrong way around.

WHERE NEXT...

There are many additions you could make to this project. For example, you could add a simple password recognition system, which would effectively lock the keyboard until it was entered on startup.

You could even use this project as a basis for one that adds an infra red keyboard to your Amiga. Please get in touch with us if you do construct something interesting.

Fig. 1



From Keyboard

Fig. 2 From AT

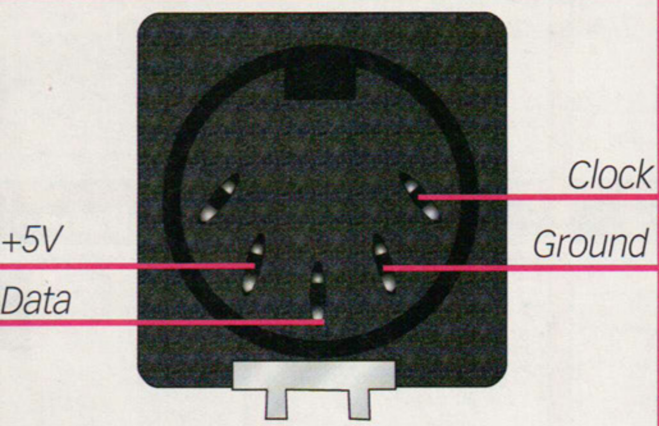
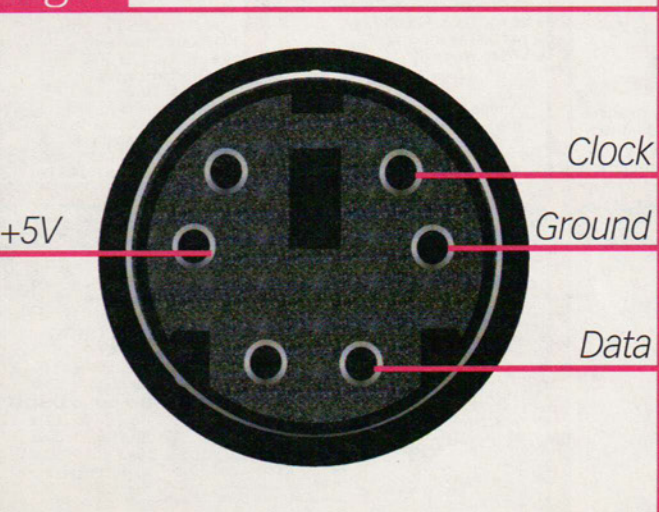


Fig. 3 From Windows



To Amiga

Fig. 4 A4000

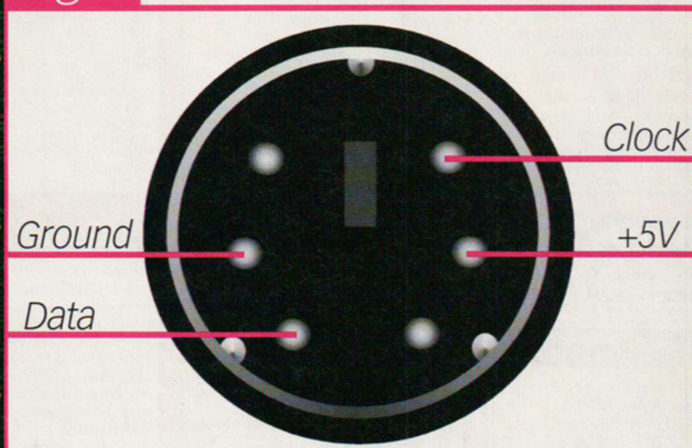
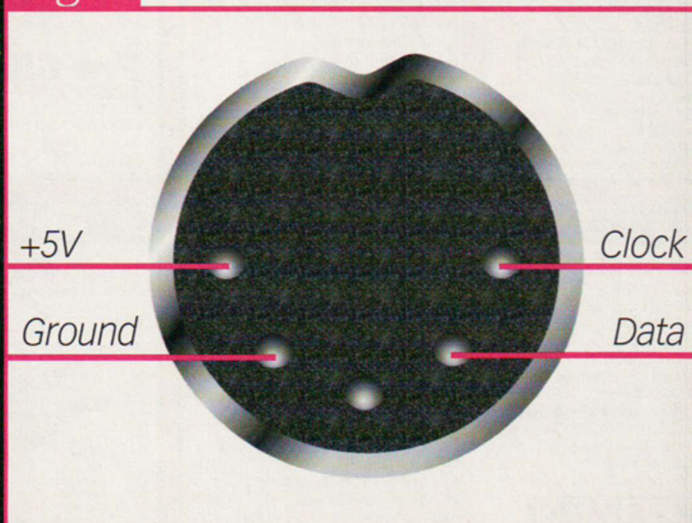


Fig. 5 A1500/2000/3000



Visit us on the Web! - http://www.firstcom.demon.co.uk/

Open Late Wednesday & Thursday 9:30am until 7:30pm

Open Sunday 11am to 4pm

FIRST COMPUTERS

DELIVERY COSTS
- 2-4 Week Days £5
- Next Week Day £7
- Saturday Delivery £15

Delivery per order, not per item. Subject to availability

Tel: 0113 231 9444

Fax: 0113 231 9191 BBS: 0113 231 1422

E-Mail: Sales@firstcom.demon.co.uk

Showroom Address:
Dept. AF, Unit 3, Armley Park Court
Stanningley Road, Leeds. LS12 2AE

Please allow five working days for cheque clearance. Prices are correct at the time of going to press. Please check latest prices before ordering. All sales are subject to our standard terms and conditions of sale. Copy available upon request. E&OE. Dated 15/04/98

SWITCH VISA DELTA MasterCard Lombard Finance



AUTHORISED REPAIR CENTRE



Our in-house engineers can offer you a no-obligation **FREE** estimate of repair on your Amiga or any computer peripheral. A delivery tariff of just £5 is charged or alternatively, visit our large showroom. We can also arrange for your items to be collected by courier for an additional charge of £11

Amiga Computers

Amiga Magic Packs

New Prices!

Includes Wordworth V4SE, Datastore, Organiser, Turbocalc 3.5, Personal Paint V6.4, Photogenix 1.2SE, Pinball Mania, & Whizz.

A1200 - 2Mb RAM No HD	£199.99
A1200 - 68030/40MHz 18Mb RAM 210Mb HD	£349.99
A1200 - 68030/40MHz 18Mb RAM 810Mb HD	£399.99
*A1200 - 68030/40MHz CPU 34Mb RAM 1.4Gb HD	£529.99
*A1200 - 68060/50MHz CPU 34Mb RAM 2.1Gb HD	£719.99

* Indicated machines come with a 200W Heavy Duty Prima PSU As Standard

Monitors

14" Digital SVGA Monitor only £99.99

External Scandoubler & Flicker Fixer £99.99

MICROVITEC 1701 17" Multisync only £399

CD-ROM & I/O

Squirrel SCSI

Squirrel SCSI PCMCIA Interface (For A600/A1200. Only £45 with any SCSI Device)	£55
Surf Squirrel SCSI PCMCIA (For A600/A1200. Includes fast serial. £80 with any SCSI Device)	£99
4008+ SCSI Interface (For A1500/A2000/A4000. Up to 8mb memory on board using 30 pin SIMMS)	£100

Power Tower
- Includes 200 Watt PSU
- PC Keyboard & interface
- Floppy Drive Facia & Cable
- Screws, labels, & mains lead

Only £149

Zorro (5 PCI, 2 ISA, 2 Video Slots Option)	£169
Zorro III (5 PCI, 2 ISA, Video option, A4000 CPU Slot)	£359
PCMCIA "V" Adapter	£30
External Audio Port (for Internal CDROM)	£16
Internal SCSI Zip (inc. 100mb Cart & Amiga Zip Tools)	£140
4 Way Buffered IDE Interface (inc. IDEfix97 S/W)	£35

Please note that a buffered IDE interface & IDE Fix 97 are required to use internal IDE CD-ROM drives in a tower case.

External CD-ROM Drives

Suitable for A1200 & A600. Includes buffered IDE Interface, PSU, and three games, (Chaos Engine & Oscar/Diggers)

24 Speed CD-ROM	£119
32 Speed CD-ROM	£129

Internal SCSI CD-ROM

*Bare drives. Internal Fitting **NOT** for A1200.*

Panasonic 4x Speed	£49
Philips 8x Speed	£59
Toshiba 32x Speed	£98

Internal IDE CD-ROM

*Internal Fitting **NOT** for A1200 unless in a tower.*

Panasonic 8x Speed	£25
Creative Labs 24x Speed	£37
Goldstar (LG) 32x Speed	£44

Hard Drives

2.5" IDE Hard Drives

Includes installation software, screws, and instructions. For A600/A1200 machines

60Mb	£49	540Mb	£109
80Mb	£59	810Mb	£129
120Mb	£69	1440Mb	£159
210Mb	£89	2100Mb	£179

3.5" Bare Hard Drives

IDE		SCSI	
2.1Gb	£117	1.0Gb	£100
2.6Gb	£134	2.1Gb	£199
3.2Gb	£145	3.2Gb	£240
4.3Gb	£154	4.3Gb	£286
6.4Gb	£206	9.1Gb	£899

A1200 4-Way Buffered IDE Interface £35
Includes Registered Atapi IDE-Fix 97 Software

PRIMA ATOM Heavy Duty PSU
- High Quality 200 Watt PSU
- Colour Co-Ordinated Casing
- 4 Times Standard Power

Only £55

3.5" IDE Hard Drive Install Kit
Includes set-up software, cables and full instructions. For A600/A1200. See above for Hard Drive prices
Only £19

Software

Aura 8 Bit Sampler	£30
Blitz Basic v2.1	£20
Cinema 4D V3	£150
Clarity 16	£96
Directory Opus 5.6 Magellan	£46
DiskMAGIC File & Disk Manager	£35
Final Calc	£95
G.P.Fax - Generic Class 1&2	£43
Hi-Soft Basic 2	£50
Hi-Speed Pascal	£65
IBrowse (Hi-Soft)	£25
Maxon Magic	£24
Megalosound	£28
Mini Office	£30
Money Matters 4	£39
Net & Web (Hi-Soft)	£30
Net & Web 2 (Hi-Soft)	£60
Net Connect V2	£50
Network PC (Weird Science)	£18
PC Task	£69
Personal Paint 7.0	£50
Power Scan Software (Epson Flatbed)	£50
Pro Midi Interface	£20
Secal Programming	£30
ST Fax Pro	£30
Studio 2 Professional	*£50
SurfWare Internet Software	£10
TechnoSound Turbo II Pro	£30
Termite TCP (Hi-Soft)	£45
Termite (Hi-Soft)	£30
TurboCalc 4.0	£50
Turbo Print 6	£40
Upper Disk Tools (Hi-Soft)	£11
Vista Pro 3 Lite	£5
Whippet (Amiga PCMCIA High Speed Serial Port)	£49
Wordworth 7 3.5" Version.	£40
WB 3.1 OS (State Amiga Model When Ordering)	£45
Zip/Jazz Tools	£17

*£5.00 off when purchased with a printer

CD-ROM Software

Prima Shareware CD-ROM only £2 with any CD-ROM purchase

Delivery £2 per title, or £5 for 3 titles or more

LSD & 17Bit Vol 1,2 or 3	£18	Epic Collection 3	£18	Mods Anthology	£24
3000 JPEG Textures	£9	Epic Interactive Enc.1997	£10	Movie Maker Special FX1	£18
3D CD 2 Images	£9	Eric Shwartz Animations	£17	Multimedia Backdrops	£15
AGA Experience 2 (NFA)	£9	Euro CD Volume 1	£12	Myst	£30
AGA Experience 3 (NFA)	£14	Euro CD Volume 2	£12	Network 2	£13
AGA Toolkit '97	£9	Flyin' High	£24	Octamed Sound Studio	£20
Amiga Desktop Video 2	£13	Fontamania	£10	One Escapee	£25
Amiga Developers	£13	Geek Gadgets 1 or 2	£13	Personal Suite	£18
Amiga Repair Kit	£35	Genetic Species	£29	Personal Paint 7.1	£23
Aminet 18,19,20,21, or 22	£11	Graphics Sensations 1	£18	p.OS (Pre-Release)	£18
Aminet Set 1, 2, or 3	£16	Giga Graphics (4CD)	£10	Prima Shareware	£5
Aminet Set 4 or 5	£27	Global Amiga Experience	£15	Quake	£30
Amy Resource Europe	£15	Gloom 3 Ultimate Gloom	£15	Retro Gold	£10
Animation (Weird Science)	£9	Golden Demos	£15	Scene Storm	£10
Arcade Classics Plus	£13	Guinness Disc Of Records	£18	Sci-fi Sensation 2	£18
Artworx	£9	Hidden Truth	£24	Sound & Graphics	£18
Assassins 3	£14	Illusions In 3D	£9	Sounds Terrific/Octamed 6	£18
Big Red Adventure	£18	Imagine PD 3D	£15	Speccy '97	£15
C64 Sensations Vol.2	£17	Insight Dinosaurs	£5	System Booster	£18
CAM (2CD)	£22	Into-The-Net	£15	Time & Reckoning	£18
Card Games PC/Amiga	£15	Kara Collection	£10	Trapped 2	£20
Civilization	£16	The Learning Curve	£18	UPD Gold	£13
Weird Science ClipArt	£9	Light ROM 4	£19	Uropa2 - Ulterior Colony	£25
Deluxe Paint 5	£20	Light ROM 5 (3CD)	£24	Utilities Experience	£14
Dem Rom	£9	Light ROM Gold	£14	1078 Weird Textures	£13
Doom 2	£15	Magic Publisher	£30	Wordworth 7.0	£40
Emulators Unlimited	£17	Magic W/Bench Enhancer	£9	Wordworth Office	£48
Encounters	£13	Meeting Pearls 4	£9	Workbench Add-ons	£21
Encyc. Of The Paranormal	£18	Miami	£28	Zoom 2	£19

Part Exchange

Money off your new hardware purchases!

Call for pricing now to part exchange your old items, and get real value for your unwanted monitors, printers, memory, computers, etc.

Second User Bargains Available Now!

Totally refurbished units, with a three month minimum warranty. Please call for current stocks and products.

Please note, we do not buy items for cash. Goods can only be exchanged against a more expensive purchase.

Example current stocks at time of press:

2.6gb External PCMCIA Overdrive HD	£100
Amiga A3000T 030/25Mhz 330mb HD	£350
Amiga A1200 Base Pack	£130
Amiga A1200 160mb HD/6mb RAM	£170
Amiga A1200 200mb HD/6mb RAM	£180
Amiga A1200/40 800mb HD/6mb RAM	£250
Amiga 2300 Internal Genlock for A2000	£30
Prima A600 1Mb RAM No Clock	£25
Amiga A500 WB1.3	£35
Amiga A500+	£50
Philips CM8833 MkII Monitor	£120
4mb 72pin SIMM	£5
Supra Fax 288 External	£25

Memory / Acc.

Prima A1200 4Mb RAM	£55
Prima A1200 8Mb RAM	£65

Includes Battery Backed Clock. Add £25 For 33MHz Co-Pro

1Mb 30 Pin (1*9) 70ns SIMM	£7
4Mb 30 Pin (1*9) 70ns SIMM	£10
4Mb 72 Pin (1*32) 60ns SIMM	£9
8Mb 72 Pin (2*32) 60ns SIMM	£13
16Mb 72 Pin (4*32) 60ns SIMM	£22
256 x 4 DRAM (DIL Type) (each)	£5
Prima A500 512k RAM No Clock	£17
Prima A500+ 1Mb RAM	£25
Prima A600 1Mb RAM No Clock	£25

Amiga Accelerator Cards

A1200 Blizzard 1260-50MHz	£320
A1200 Blizzard SCSI Module	£60
A1200 Viper II 68030 40MHz	£85
A1200 Magnum 68030 40MHz	£85
A500/+ Viper 520CD 68020 33MHz 8Mb	£99
A600 Viper 630 33MHz With FPU	£75

All the above A1200 boards are PCMCIA compatible

Storage

iomega Zip Drive Only £129
- Includes One 100mb Cartridge
- Fast SCSI Interface Version
- Includes Cable & Amiga Zip Tools

Zip Drive 100mb Media (each)	£10
Squirrel to Zip Adapter	£18

A SCSI Interface may be required at an extra cost. See Squirrel section on this page, above right.

A500/A500+ Internal Drive	£25
A600/A1200 Internal Drive	£25
A4000 Internal Drive	£65
Golden Image External Drive	£42

Wizard Saturn External 1Mb Floppy Drive for all Amigas
Only £39
Free Dir. Opus 4.12!

Graphics

Scanners

Power Hand Scanner Mono (256 greyscale on AGA Amigas. 64 Greyscale on others.)	£65
Epson GT5000 Flatbed Scanner (2400 DPI Output. 24 Bit Colour. Requires Software Below)	£189
Epson GT8500 Flatbed Scanner (3200 DPI Output. 32 Bit Colour. Requires Software Below)	£400
Amiga Epson Scanning Pack (Includes Full Image Scanning Software & Required Cable)	£50

Genlocks

Lola L-1000 Genlock (Mix video & graphics with ease, supports AGA as standard)	£115
Lola L-1500 Genlock (Composite video out. 2 Sliders, 1 fade to black)	£175
Lola L-2000 Genlock (Hi-8/YC input/output, includes dissolve & fade sliders)	£350

Pro-GRAB SVHS 24RT Plus
- 24 Bit Colour Realtime Digitiser
- Easy Set-Up With Full Software

Only £99

Pro-Grab 24RT PCMCIA Adapter £30

Modems

DIAMOND MULTIMEDIA SupraExpress

SupraExpress 56 Voice
- BABT & CE Approved
- Voice Capabilities
- 56,000 Data
- 14,000 Fax
- 5 Year Warranty

Only £99.99

Dynalink 336 Voice
- BABT & CE Approved
- Full Duplex Speakerphone
- 36,600 Data, 14,000 Fax
- 14,000 Fax
- 1 Year Warranty

Only £54

Amiga Surfware Internet Pack
The Complete Software Suite For All Your Internet Needs. Includes 30 days FREE Internet Access, excluding local call charges
Only £10 Or Just £6 With Any Modem

Miscellaneous

Zydec ZyFi Speakers

ZyFi 2 — 64 Watt PMPO, Mains Powered — Only £25

ZyFi 2 Pro — 120 Watt PMPO, Mains Powered — Only £43

ZyFi To Amiga Cable	£5

Chip Upgrades

68882 Co-Pro 33MHz PLCC	£25
68882 Co-Pro 50MHz PGA	£35
Agnus 2Mb 8375-16 (A500+)	£28
CIA 8520 I/O Controller	£19
Kickstart 2.04/2.05 ROM Chip	£25

Miscellaneous

A520 TV Modulator	£35
Zipstick Super Pro Joystick	£13
Wizard 560DPI Mouse	£13
Quality Mousemat (4mm)	£2
3.5" Floppy Drive Head Cleaner	£2
80 Cap. Banx Lockable Disk Box	£10

Printers

Free printer drivers supplied where possible. Some printers require additional software. See software section above for discounted prices. Please contact us for full details.

All our printers include a free data cable worth £5!

Canon

BJC-30 Colour Inkjet (720 x 360 DPI Mono Printer. 30 Page ASF Built-In)	£159
BJC-80 Colour Inkjet (720 x 360 DPI Colour Printer. 30 Page ASF Built-In)	£189
BJC-250 Colour Inkjet (720 x 360 DPI. Mono & Col. Carts Supplied. 80 Page ASF)	£100
BJC-4300 Colour Inkjet (720 x 360 DPI. Optional Colour Scanner Cart. 5ppm Mono)	£132
BJC-4650 Colour Inkjet (720 x 720 DPI. Up to A3 Colour Printing. Dual Cart Printing)	£265
BJC-620 Colour Inkjet (720 x 720 DPI. Four Separate Cartridge Colour Printing)	£222

Citizen Computer Printers

ABC 24 Pin Dot Matrix Printer (300 DPI by 300 DPI. 50 ASF Built-In.)	£109
ABC Tractor Feed Unit	£35
Printiva 700C (600 DPI Colour, 1200 DPI Mono. Advance Micro Dry Tech.)	£292

Epson

Stylus 400 Colour Inkjet (720 x 720 DPI. 4ppm Black, 3ppm Colour. 100 Sheet ASF)	£134
Stylus 600 Colour Inkjet (1440 x 720 DPI. 6ppm Black, 4ppm Colour. 100 Sheet ASF)	£185
Stylus 800 Colour Inkjet (1440 x 720 DPI. 8ppm Black, 7ppm Colour. 100 Sheet ASF)	£265

Hewlett Packard

HP-340C Portable Colour (600 x 300 DPI Mono, 300 x 300 DPI Colour. 2ppm Mono)	£180
HP-400L Colour (600 x 300 DPI Mono, 300 x 300 DPI Col.)	£110
HP-690C Plus Colour (300 x 300 DPI Colour Printing. Now Even Faster.)	£192
HP-870CXI Colour (600 x 600 DPI Mono, To 8PPM, 600x300 Colour To 4PPM)	£256
HP-6L Mono Laser (600 DPI, 1Mb RAM, 6 Pages Per Minute Printing)	£279

Dual Parallel Printer Swtchbox £13
Includes cable. Other types & specifications also available

Cables

This is only a small selection, Please call.

23 Pin To 15 Pin Multisync Adapter	£7
9 Pin Mouse/Joystick Extension	£5
Mouse/Joystick Switcher	£14
Surge Protector 4 Plug Adap.	£15
Parallel Printer Cable 1.8M	£5
Parallel Printer Cable 4.5M	£12
Parallel Printer Cable 10M	£20
Parallel Bi-Di Printer Cable 1.8M	£5
Parnet Cable 25 Pin D Type	£15
Null Modem Cable 25DF-25DF	£10
Modem Cable 25DF-25DM	£10
RGB 9 Pin Monitor Cable Extension	£15
Multisync Monitor Cable Ext.	£12
1438 23 Pin To 15 Pin D Adap.	£10
Amiga To Scart Cable (CM8833 Mk1)	£10
9 Pin Extension Cable 3M	£7
Amiga to Philips 8833Mk II	£10
25D To Centronics Male	£12
Centronics Male To Female 1M	£15
Centronics Male To Male 1M	£15
SCSI 3 Device Internal Cable	£14
SCSI 7 Device Internal Cable	£17
Micro D Male To Micro D Male	£33
Micro D Male To Centronics Male	£33
25D To Centronics Female	£18
Internal 50 Way SCSI To External	£13
Amiga A600/A1200 2.5" IDE Cable	£10
Dual 3.5" IDE Cable	£10
A600/A1200 2.5" To 3.5" Cable Set	£20

Consumables

Delivery just £2 on small items under £20

Canon

BC01 BJ10/SJ48 Black	£17
BC02 BJ200 Black	£18
BC05 BJC210 Black	£20
BC06K BJC240 Photo Kit	£26
BC06 BJC240 Photo Cart	£20
BC09F BJC240 Fluores.	£26
BC10 BJ30 Head & Ink	£30
BC11 BJ70 Heat & Cart	£32
BC20 BJ4x00 Head&Black	£32
BC21 BJ4000 Head + Inks	£35
BC22 BJC4200 Photo Cart	£27
BC22K BJC4200 Photo Kit	£37
BC29F BJC4200 Fluores.	£32
BCI10 BJ30 Black 3 Pack	£11
BCI11BK BJ70 Black 3 Pk	£9
BCI11C BJ70 Colour 3 Pk	£15
BCI21BK BJC4000 Black	£5
BCI21C BJC4000 Colour	£14
BJI20B BJC6x0 Black	£5
BJI20C BJC6x0 Cyan	£6
BJI20M BJC6x0 Magenta	£6
BJI20Y BJC6x0 Yellow	£6
BJI642 BJ300/330 Black	£11

Refills/Re-Inks

Re-Ink Ribbon Spray	£10
Black Ink Cart Refill 50ml	£8
3 Colour Ink Refill 75ml	£13

Citizen

ABC/Swift Mono Ribbon	£5
ABC/Swift Colour Ribbon	£13
Projet IIc Colour Cart.	£30
Projet IIc Mono Twin Pack	£7
Project IIc Mono + Head	£22
Printiva Black	£6
Printiva Cyan	£6
Printiva Magenta	£6
Printiva Yellow	£6
Printiva Silver	£16

Epson

Styl. Col. 400/600 Black	£19
Styl. Col. 400/600/800 Col	£22
Styl. Col 800/1520 Black	£21

Hewlett Packard

Deskjet 340 Hi-Cap Black	£21
Deskjet 5x0 Series Black	£24
Deskjet 5x0/340C Colour	£26
Deskjet 6x0 Series Black	£24
Deskjet 6x0 Series Colour	£26
Deskjet 8x0 Series Black	£24
Deskjet 8x0 Series Colour	£26

Paper

500 Sheets (Fanfold/Single)	£5
1000 Sheet (Fanfold/Single)	£9
100 Sheets Epson 720dpi	£13
200 Sheet Canon Hi-Res	£25
500 Sheet HP Bright White	£11

3.5" Floppy Disks

Bulk DSDD

10x	£2.40	100x	£21.00
30x	£6.90	200x	£40.00
50x	£11.00	500x	£90.00

Branded DSDD

10x	£3.00	100x	£26.00
30x	£8.70	200x	£48.00
50x	£13.50	500x	£110.00

Bulk DSHD

10x	£2.40	100x	£21.00
30x	£6.90	200x	£40.00
50x	£11.00	500x	£90.00

Branded DSHD

10x	£3.20	100x	£27.00
30x	£9.30	200x	£50.00
50x	£14.00	500x	£115.00

500 Disk Labels	£7
1000 Disk Labels	£10

SCREENPLAY

The latest games, hints and some clever programming from you!

Despite having no new games to preview (they're coming – it's just a little early to show you screenshots), we've got a wealth of new games in for review. Not all of them are of the highest quality though (as you'll see when you read the reviews) which is a shame because this is just the time to follow up the release of great games like *Quake* and *Malice* with some entertaining and enjoyable software.

Not all publishers appear to think the same as us on *Amiga Format* and seem to be under the impression that any game will sell, regardless of quality. Of course we want you to keep supporting the Amiga but we don't want you to waste your money. Enjoy...



Andy Smith

AMIGA FORMAT'S REVIEW POLICY

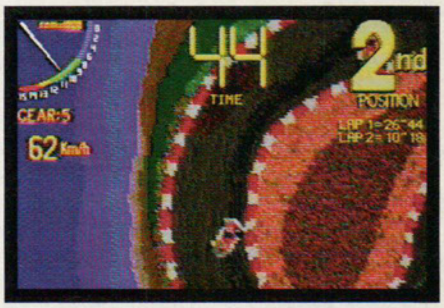
WHAT OUR REVIEW SCORES MEAN

Every month we scour the world's software houses for the latest and greatest Amiga games. We try to ensure we keep you as up to date as possible and we'll stop at nothing to bring you the best, definitive, no-nonsense reviews of the games that matter.

90+%	The crème de la crème. Only the very best, most playable and original games are awarded an AF Gold – the most highly prized rating there is.
80-89%	These games are very good, but due to minor flaws are not the finest examples of their genre.
70-79%	Good games which are worth buying, especially if you have a special interest in a game type.
60-69%	Average releases with somewhat limited gameplay and appeal. Games in this category tend to be flawed.
50-59%	Below average games which are unlikely to impress your mates or your wallet..
40-49%	Overwhelmingly poor quality games with major flaws and appalling gameplay.
Under 40%	The absolute pits.



Fourth position on the second lap. Things aren't looking good for the boy Smith at the moment...



Second position – that's more like it. Has *VK2* got the horsepower worth opening your wallet for?



You won't be shocked to learn that this one's all about bending beams.



Bomb and blast the cola-sponsored spaceships!





Your headquarters in *Foundation* is of the utmost importance. Do not let the enemy capture it!



Fit the pieces together and make sense of this novel adventure.

Wheels on Fire

Andy Smith jumps into his car and starts this month's four-wheeled racing fest...

Oh yes, get all that football nonsense out of the way – what you want to be doing, my friend, is driving a fast car at a ridiculous speed and shunting anyone who gets in your way off the road. Oh yes indeedy.

Enter *Wheels on Fire*, the first of this month's racing games. Right then, let's put it on the grid and examine its chassis.

Pay attention now because this gets a little complicated. The game features five divisions of 16 drivers. You start in the lowly first division (with 15 others... with me so far?) and then race against three others on a track. Finish the four lap race in either first or second position and you then race this track again, but there will only be eight drivers left. Finish this race in the top two and you can race the track one last time as one of the four top drivers.



This shouldn't pose too many probs.



Now, and here's where it goes a bit funny, fail to finish this race in the top two and you still get to race on the next track but you won't be able to score any more points racing on the old track, whereas your competitors will.

After every three races though, the top eight drivers step up a league and the whole process starts again. Did you manage to come out of that with your head un-twisted? Good, because the starting lights have gone green.

This is a viewed from behind racer with no option to change the viewing angle. You're driving a purple car and, curiously, so is everyone else. You're presented with a small overview of the track prior to the race with a brief description of what to look out for, then it's just a case of trying to stay on the often undulating tracks and getting ahead



When the lights go green, hit accelerate and watch as the game, er, trundles along. Ahem. Oh dear.

> **"The graphics are pretty awful and though they're quite zippy (you need an '020 minimum to run this) they're not the fastest or smoothest around."**

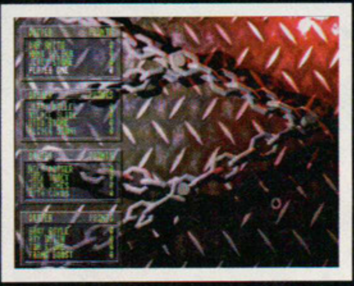
of the other drivers. This is where you'll encounter your first problems.

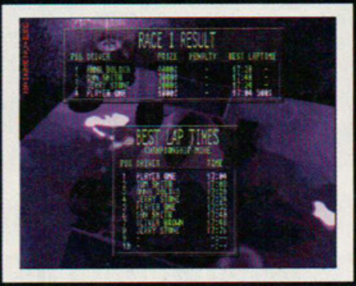
Going slightly off-line is ok on a lot of courses – in fact it's a lot easier to cut most of the corners if you can as you simply power on and rejoin the track, making sure you drive over the blue chequered lines that dot the course or your lap is not counted.

On some courses though (oddly, snow seems to be the biggest culprit) getting off the track gets you bogged down almost immediately. Even though you could have been flying to the crest of a hill, you can find yourself coming to a standstill as soon as you stray off the track.

And while we're with tracks, it's worth mentioning that the higher up the divisions you go, the tougher the tracks get, with the introduction of banked corners, jumps and so on. This is where you'll want to be spending your prize money wisely.

At the end of each race, prize money is given out and you're taken





The seeding process in action (top left). The results and the players' standings are displayed at the end of each race (top right). As you progress through the divisions, the courses get twistier, more banked and jumps start to appear (below). Sadly, none of that makes the game any more fun to play.





> **"The slightest bump and slide scrubs a huge amount off one of your four elements and they're far too expensive..."**

to the garage where you can repair and replace your car's four elements, namely tyres, engine, suspension and armour. During the race all of these elements take a bit of a knocking and become worn.

This can be race threatening if it happens to be your engine or your armour because with no engine you're not going anywhere and likewise with regard to armour.

Not surprisingly, the more you spend on an element (and there are half a dozen or so different types of tyre, suspension, engine and so on) the better it's going to perform and the longer it's going to last.

However, should you find that you're down to 10% engine performance and don't have enough money to replace it, when the engine conks out, so has your game.

So that's the guts of *Wheels On Fire*. Let's have a bit of post-race analysis, shall we? For a start it doesn't get off to a good one. The graphics are pretty awful and though they're quite zippy (you need an '020 minimum to run this) they're not the fastest or smoothest around.

There's some hills, jumps, dips and stuff, but the designer's claim of 'superfast, very smooth and fluid 3D 'Voxelspace' graphics with a high level of detail' is just what I'd have written if I was trying to think of some good points about an otherwise middling graphics engine.

Let's have a look at the controls. Decidedly average here. Apparently your car behaves differently on different surfaces like asphalt and snow. Which is true if what they actually mean is you can drive across the asphalt a bit but the snow acts like glue after half a second. *Wheels On Fire* is losing places.

Let's have a look at being able to upgrade your car then. The slightest bump and slide scrubs a huge amount off one of your four elements and they're far too expensive to keep at 100% (a tip: don't bother replacing anything until it's fallen at least below 50%) so this is not a satisfying part of the game. *Wheels On Fire* drops further back.

Finally, the playing experience. Sadly this is where *Wheels On Fire* loses most ground. It doesn't manage to get the speed up to generate excitement. The tracks are not very inspired and even the graphic trickery of introducing fog and the like fails to get the adrenaline pumping. The computer drivers do prove to be something of a challenge and you're not likely to make it to division five on your first outing, but then again you're not likely to want to try again after your first outing.

After games like *F1GP*, the *Lotus* games and dozens of others, *Wheels on Fire* shouldn't have bothered to come out of the garage.



Hit the blue lines to record the lap.



PUBLISHER: Epic Marketing (01793 490988)
PRICE: £TBA
VERSIONS: A1200
REQUIREMENTS: '020 CPU, 2Mb Chip, 4Mb fast RAM
RELEASE DATE: Out now

GRAPHICS: ●●○○○
Not fast, not detailed and the textures leave a lot be desired. More of a moose than a babe.

SOUND: ●●○○○
Do an impression of a car squealing round a corner – that's better than the sound in WOF.

ADDICTION: ●●○○○
Step up a couple of divisions and the races get slightly more interesting.

PLAYABILITY: ●●●○○
Accelerate, brake, corner, curse. Accelerate, brake... it's easy enough to get into.

OVERALL VERDICT:
Little going for it apart from a very limited budget management. Not much fun to play.

45%

Virtual Karting 2

Boy racer Andy Smith had always fancied himself as something of a speedmeister, until now...

We'll deal with what's right with the game first. The designer, programmer, graphic artist, sound effects man, tea boy and hairdresser, Fabio Bizzetti, is obviously into the Amiga. This game does magic tricks with the various processors, making it run at up to 50fps on an unexpanded Amiga. Impressive stuff if you know your frame rates. Good so far.



> **"...you'll be amazed how a couple of blades of grass can scrub some 50kph off your speed in a micro-second."**

When the forerunner of this game appeared at the back end of '95, a certain Mr. Bradley got to review it and he highlighted that game's biggest failing – its control method. *Virtual Karting* used the hideous 'push forward on the joystick to accelerate' method of control and this made the game unnecessarily difficult to manage, especially on the "...particularly tight horseshoe bends". Now we all know he meant hairpins, but the point was that the game lacked the ability to use the firebutton to accelerate. *VK2* has addressed that problem as well.

Now there is indeed an option to allow you to use the fire button to accelerate and that makes controlling your kart a whole lot easier and a whole lot more fun. There's now even an option to do it from the keyboard, which to my mind is the only real way to play a racing game.

But, and it's a big BUT, that's about it as far as improvements go. You've still only got the six tracks (three are available immediately: beginner, advanced and expert) and there's no league or championship to take part in. You've got the same two karts to choose from: a 100cc version (described as 80cc in the manual for a reason best know to the producers) which apparently has "...a reed valve in the intake and an exhaust valve: this gives less power but better torque and makes it be (sic) a very



Those funny things sticking out of the top of your kart are, in fact, feet. And they move. Accelerate and brake to make 'em wiggle.





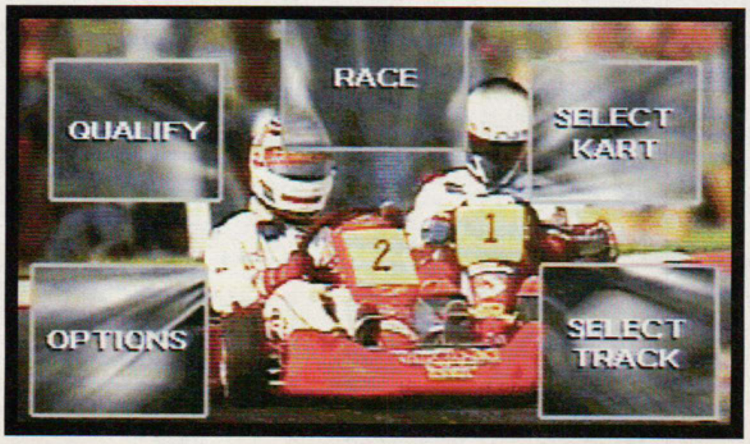
(Top) Backgrounds off. (Above) Backgrounds on. You pays your money and takes your choice.





The further away you view the action, the more of the track ahead you can see. Not that it's going to help you much...





Karts one and two were close friends. They would often race around together and ignore the others.



simple kart to drive", and the 125cc version which "...has a rotating disc valve in the intake and no exhaust valve: this gives more power but makes the kart feel very nervous...".

All of this sounds highly technical and sort of simulationey. The fact is, the 80cc karts (we'll call 'em that, shall we?) are, as you might expect, slower than the 125cc karts. Unless you know all about powerbands and torque ratios, you're not likely to notice any other differences. I know I didn't, though I'm prepared to believe that there are some.

There are still two viewing modes. 2D simply puts you in an overhead view (a la *Micro Machines, Super Sprint*, et al) which is all nice and good. This actually makes it easier to drive the kart, simply because the faster you're going, the further the camera pulls out, which gives you a much better view of the road ahead.

It also seems to be more forgiving when you happen to put a wheel onto any of the dirt at the side of the tracks. If you do that when you're in the 3D mode, you'll be amazed how a couple of blades of grass can scrub some 50kph off your speed in a micro-second.

The 3D mode is much more satisfying to play in though, because you get a much better sense of speed. There are four angles to view the action from in this mode, from low down to high up, and the lower down you go, the faster the game seems to run. The payoff here is that you get to see less of the track and it's harder to judge the corners.





The 2D viewing mode gives you the best view of tight corners – use it when you want to do well.

Whatever mode you're racing in, you've got unlimited qualifying laps to mess around on before you're thrown into the five lap race. Each race begins from a rolling start and before you know it you're trolling around in sixth place, desperately trying to finish the lap to give yourself a few more precious seconds to finish the next one with.

If the other racers don't get you (which is likely), the game's time limit will. You'll be finishing before the full length of the race more than once because there's simply not enough time to get the laps in.

The difficulty tuning on this game is all wrong. OK, so it's supposed to be a realistic simulation (hey everyone, you can slipstream another driver and get a tow from them, just like real life!) but the fact is that unless you drive each and every lap perfectly – that means not only not hitting anything at the side but accelerating and braking at just the right moments and for just the right amount of time – then the other karts will fly past you.

Your only hope of winning is to drive the qualifying laps for about half a day, get into first place and then do your damndest to block the other drivers. However, I'll tell you now that you're on a hiding to nothing because this game just gets too damn hard too damn quickly to keep you playing.

It moves fast, it's fun to drive, you can really get into sliding through corners and it does become more enjoyable when you learn how to take a corner on the ragged edge, but that's where the fun ends.

> **"...I'll tell you now that you're on a hiding to nothing because this game's just gets too damn hard too damn quickly..."**

The improvements are listed thus: twice as many tracks (sure, but how on earth do you manage to get at the other three?), 2x1 resolution, improved dithering (so minor you'd hardly notice), objects on the road and water reflections (which is a bit of graphic trickery you won't notice when you're driving), easy mode for beginners (the other karts take two seconds longer to overtake you) and there's a slightly deeper engine sound (whoopee-do).

Mr. Bradley would be pleased to learn that there have been some improvements to the game's control method. Mr Bradley, like me, would be disheartened to learn that after all this time that's just about the only appreciable improvement.

Mr. Bradley, like me, would therefore find it hard to recommend this game to anyone who enjoys a good driving challenge that's not impossible and yet not baby-easy. Thankfully, there's *F1GP, Micro Machines, Super Skidmarks* and a whole host of other driving games that you can turn to that are a lot more fun. AF







We really can't stress enough how much better this game looks on screen than on paper.

PUBLISHER: Weird Science (0116 2463800)
PRICE: £14.99
VERSIONS: A1200
REQUIREMENTS: AGA Amiga
RELEASE DATE: Out now

GRAPHICS: ●●●○○
They're texture mapped and look better on screen than they do on the page.

SOUND: ●●○○○
A deeper engine noise? Now it's not painfully tinny, it's just tinny.

ADDICTION: ●●○○○
The competition's too stiff too early. No league + no championship = limited interest.

PLAYABILITY: ●●●○○
Easy now there's alternative control methods.

OVERALL VERDICT:
Better control is not enough to turn this into a thrilling game. It's slightly more playable but no more exciting.

62%

Beambender

Andy Smith normally associates benders with weekends on the lager and not with shiny strips of coloured light. Well, not until the weekend's over...





Things start very simply (top) but it doesn't take long before they become very complicated (above). What the hell's going on here?

And after a decent weekend's bender this is one game I wouldn't be playing come Monday morning. All your faculties need to be in tip-top form for a bout of *Beambender* – your mind must be clear and your hand can't be shaking.

The basic premise of the game is this: you have a cannon (though there could be more, depending on the level) that periodically fires a beam of coloured light, the colour depending on the colour of the cannon. This beam of light needs to be directed towards the colour coded exit through a series of mirrors and other gadgets, and all of this needs to be done within a strict time limit.

The mirrors and other gadgets, including dividers that split the beam and colour convertors that change the colour of the beam, are all displayed at the bottom of the screen. These tools are essential because there are times you'll find yourself having to get, say, a blue beam into a red exit. In order to do that you're going to have to change the colour of the beam, but actually getting the right tool to do it is not that straightforward.

> "...you've got to be swift to click on these little annoyances and there seems to be a never-ending supply of them."



When you've got the things in the right place, you need to test your layout. Green finds things to his satisfaction here.

Your little box of mirrors is constantly changing. You have six little boxes where your mirrors appear and they only hang around for a few seconds before disappearing. They are then replaced by a different mirror or gadget, so you have to constantly keep your eye on the boxes and be ready to click on the one you want before it vanishes.

Life can be made easier by selecting unwanted components and dropping them in the available wastebin, which forces the box to produce a new component, hopefully one you'll want to use.

As well as trying to figure out how to get the beam where you want it to go within the time limit, there are other gremlins to mess you about. Periodically, little smiley faces appear. Some are worse than others but all of them need to be clicked on to make them disappear, otherwise they could render one of the tiles you want to place something on useless.

This is where your steady hand comes in because you've got to be swift to click on these little annoyances and there seems to be a never-ending supply of them.

As well as the smiley faces there's the actual layout of the level to twist your melon as well, as there are tiles that must be avoided at all costs. This is because they either absorb your beam or cause you to re-start the level with the loss of a life. Tricky stuff indeed.

Beambender's good fun. Playing usually involves clicking on the pause button immediately so you can get a look at the level, putting down some mirrors and convertors and then testing your layout to see if you've gone wrong somewhere, before making any adjustments.

With some 80 levels this is going to really test you, because they start getting difficult from as early as level three onwards. Be prepared for a serious cerebral workout.

Though it's engrossing, the annoying smiley faces soon really get on your wick. The layouts are usually clever enough to give you a good challenge without having to break off and deal with the pests every couple of seconds and this, for me, took some of the shine off an otherwise splendid game.





Don't hit the skull heads as you lose a life and have to restart the level. Tricky stuff indeed.

PUBLISHER: Epic Marketing (01793 490988)
PRICE: £14.95
VERSIONS: A1200
REQUIREMENTS: 1Mb
RELEASE DATE: Out now

GRAPHICS: ●●●○○
People won't want to watch over your shoulder but all the icons are adequate.

SOUND: ●●●○○
Some lovely effects, some mediocre ones, and some good music to interrupt your thoughts.

ADDICTION: ●●●●○
Crack a level and you'll want to try the next one. Passwords more often would be nice.

PLAYABILITY: ●●●○○
Not as simple to get to grips with as you might imagine, but worth persevering with.

OVERALL VERDICT:
A fine brain tease with plenty of challenge. You can even get a mate to join in on the teamwork mode. Very good, but not a classic.

83%

Powder



In which Andy Smith flies through the sky and changes shape. He's obviously been on the 'Crazy Shooting Powder' again...

Shoot-em-ups are, fortunately, an addiction that won't generally lose you friends, family and self-esteem. But then again... naw, they're harmless stuff and can be a great blast when you're in the mood. They've been the backbone games genre since, well, since people started playing games.

This particular little bundle's a sideways-scrolling affair, taking you through six levels of the usual shoot-em-up adversaries – flying baddies, ground baddies, and end of level baddies – where you simply try to survive for as long as possible.

Everything about the game is stunningly average or worse. There are a couple of nice graphic effects, like the shimmering windows on the office blocks you're flying past, but for the most part it looks decidedly home-made. It's worse, because they've made it extremely difficult to see the little red dots that the enemies fire at you in amongst the general background mess.



There you are, that sitting duck in the middle of the screen, just below that crane-like structure.

Powder has no new ideas and only manages to lift itself slightly from mediocrity by allowing the player to change weapons. You start the game with only a three-way gun and two credits. However, by moving left and right on the joystick (which, incredibly, you have to do anyway to avoid the shots fired at you) you can highlight different weapon icons at the bottom of the screen. Then, by either rotating the joystick (!) or by hitting the space bar, you can change your ship and your weapon.

Some weapons are more effective against certain targets than others so the general idea's to change weapon when you've reached a certain part of the level and then change again when you're onto the next wave or whatever.

Sadly though, you can't just change when you want to because your ability to morph is dictated by the size of your credit balance and that's controlled by the number of points you score.

There's also not a great deal of difference between the weapons. You might think the one with the small laser and homing missiles is better than the powerful laser but it's not really. By the time your homing missiles have wandered all around the screen, you've probably zipped about and destroyed the target they were aiming for anyway.



The best weapon is the hardest to use, so don't bother. Shouldn't you be out in the fresh air anyway?

Shoot-em-ups may be the mainstay of simple, addictive gaming but they really need to be fun and enjoyable to be worth spending more than the cost of a blank disk on.

> "Everything about the game is **stunningly average** or worse... for the most part it looks decidedly home-made."

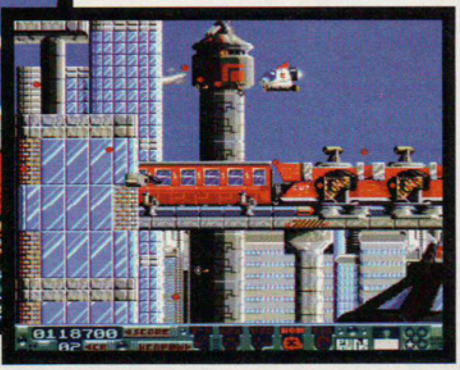


Powder just isn't worth spending any money on at all, and about the only thing I could really say about it is to just say 'No'. AF



You'll get more enjoyment reading this caption than you would playing Powder. Probably.





PUBLISHER: Epic Marketing (01793 490988)
PRICE: £9.95
VERSIONS: A1200
REQUIREMENTS: 1Mb
RELEASE DATE: Out now

GRAPHICS: ●○○○○
Enemy bullets are lost in a garish mess of background nonsense and the craft are poor.

SOUND: ●●○○○
A run of the mill soundtrack with the odd effect. Not worth plugging into the stereo.

ADDICTION: ●○○○○
Play it once, get your finger sore, put it away.

PLAYABILITY: ●●○○○
Rubbish.

OVERALL VERDICT:
According to my own policy, it's "The absolute pits". At 41% it would've been "Overwhelmingly poor quality... with major flaws and appalling gameplay". It doesn't deserve 41%.

23%

Foundation



Building a community, devoting himself to his loyal followers and killing anyone who opposes his rule – Andy Smith's back on the throne.

Somebody's finally done a *Settlers* clone! Once more we can have loads of little people running around the place, carrying things and fighting anyone who's not a part of their tribe – oh joy!

As regular readers will know, because we've been following the progress of this game over the last few months, *Foundation* has been in the making for a couple of years and it's largely the responsibility of one Paul Burkey. Paul was so enamoured with Blue Byte's original kingdom sim *The Settlers*, he decided to write a similar game but with some brand new additions and improvements.

> "You need coal to make steel and you need steel to make armour and you need the armour to create knights."

The Settlers' comparisons are immediate and obvious. Once more you've got an isometric 3D landscape in front of you in which you'll found your settlement and nurture it from a hamlet to a thriving metropolis – well, a bustling market town maybe.



Selling off surplus resources in exchange for those you lack is necessary to keep things rolling.

You're given a handful of resources with which to start your community off and then it's down to you to rape and pillage... ahem, I mean extract and utilise the natural resources the landscape offers, in order to grow your tribe.

Essentially, this means you can construct a couple of buildings to start with and then you have to make your own building blocks if you want to expand.

A forester's hut is needed if you want to chop down trees and turn them into planks of wood, a mine is needed if you want to dig for coal and so on.

And again, like *Settlers,* there's a chain effect going on here. You need coal to make steel and you need steel to make armour and you need the armour to create knights. But with *Foundation,* things are slightly more complicated.

Each of your buildings produces certain raw materials, but precisely which of those is produced can be decided by you. You also have the power to decide how many people work in those buildings and this can be crucial to growing your community because your most

Your knights have captured an enemy fortress so it's time to bring down your wizard and get him to make the building vanish. Tee hee!





With the enemy base so close you can bet you're going to have a lot of the enemy peasants trampling through your territory. Get some knights on patrol and enjoy being able to say 'Trespassers will be killed'.





Your headquarters is your most prized possession. Lose it and you've lost the game.





A little angel floats to heaven, indicating that someone's died. I reckon my knight's to blame…





precious resource is your peasants. These lil' chaps carry everything around the place and go on to be knights when you're ready to go on the offensive (the game is mission based and often involves you having to go and eradicate any tribes that happen to be sharing the landscape with you). Creating peasants involves building little huts for your maidens to live in (bizarrely, they have no other function in the game – maidens are there to reproduce) and putting some chaps in there with them. Eventually, a fully-grown and ready-to-work peasant is created, and so your community grows.

Peasants will go about their business without your interference if you so desire, but as you get more experienced you can start to dictate exactly what is produced and in what quantities. If your community is lacking food, for example, you can shut down all your mines or whatever and get everyone out into the fields. You can also assign priority levels as to which commodities are carried.

This means that with good management you can grow your town at the optimum rate, but that doesn't mean you have to be some kind of statistics nut to get the most out of *Foundation* – a lot of the game will just run its course with no interference from you. However, this also means that as you become more familiar with the game world, the more you can meddle around in it, just like in *The Settlers*.

But there are differences. For a start, your peasants have





Your buildings are constantly falling apart so you've got to keep repairing them. If you haven't got the gold then you'll have to use your valuable resources to keep them operating (forget and they disappear!).

> "These lil' chaps carry everything around the place and go on to be **knights** when you're ready to **go on the offensive**…"

Continued overleaf ➡

different abilities. For example, they can burn down enemy buildings. You also have wizards to play around with, and though they don't actually run around the place making magic, they are essential because they create your buildings – instantly.

If you've got enough wood and stone to make, say, a bakery, select where you want to place it, issue the command and watch as your little wizard strolls along and zaps it into creation. And, as you've probably guessed, you not only need a spare peasant to create a wizard but also a training centre in which to do it.

Foundation also has a simple

> "...your knights seem strangely thick and will often allow enemy units standing next to them to steal stuff from you."



That dodgy level six. Send everyone out of the building, group 'em together and lead 'em carefully home. It's as simple as that. Hmm.



but effective shopping system. You can elect to sell off some of your surplus stocks at any time (unless you've built a warehouse, your main building can only hold 50 units of each item) for a commodity you need. Obviously this isn't an ideal situation but it's very handy for getting you out of a mess or if you're too impatient to wait for whatever it is you're waiting for. There's also a trading system in which you can offer to trade commodities and then sit back and wait to see if anyone takes you up on the offer.

Foundation has some 40 missions to complete and don't expect them to be completed quickly (except for the first one which you can sort of cheat your way through by selling off some goods and buying what's required). It takes a while to build up your community and even longer to get to the point where you've got enough peasants to start turning them into knights.

Combat's a large part of the game and it's also relatively easy to control. You can rubber band a few knights together and tell them to go and attack a certain enemy building. They then troop off and have a pop at any enemy personnel in the building before taking it over themselves (and if you want to destroy the building you either have to call in a wizard or get your technology levels up enough to teach your peasants the noble art of arson).

Though for the main part the missions are fun to play, they do feel very similar after a while and it's sometimes amazingly easy to complete them.

For example, mission six involves a rescue. You have about a dozen people living in a remote hut that need to be rescued and brought back to your main building. I assume you're supposed to do things the normal way and build up your forces before striving out and making the daring rescue attempt. Erm, except you can just tell everyone to leave the hut immediately and simply lead 'em back to your main building. This, I'm sure, is more a hiccup than the norm though.

Is *Foundation* better than *The Settlers* then? Frankly, no. It's not even as good as *The Settlers*. Oh, it's an admirable effort and anyone who enjoyed *The Settlers* will enjoy *Foundation*, but it's just not as fun to play. There are some very good points – you don't end up worrying more about the transport network than anything else, for instance, but unless you've got an accelerated machine you'll find it dreadfully slow and annoying (it remembers mouse clicks so you



When you're off on the rampage, gather together some knights and have them all attack the same target – it makes short work of most enemies.

can click on one thing, get bored and click on five other things, only to have them all activated when you don't want 'em to be).

The interface is fiddly for the most part and it can be frustratingly difficult to expand your community – all the new peasants seem to be maidens a lot of the time. Although the workers seem to know what they're doing, your knights seem strangely thick and will often allow enemy units standing next to them to steal stuff from you.

Yes, it's slightly more involved that *The Settlers*, yes, there are loads of missions (most well designed) and yes, it's a lot of fun to play, but sadly, no, it's not as good as The Settlers.

PUBLISHER: Weird Science (0116 2463800)
PRICE: £29.99
VERSIONS: A1200
REQUIREMENTS: 2Mb, CD ROM
RELEASE DATE: Out now

GRAPHICS: ●●●○○
Difficult to see what a lot of the icons are and hard to tell when some of them are highlighted.

SOUND: ●●●○○
Nothing special and quite annoying when the game pauses to load in a noise.

ADDICTION: ●●●○○
You'll be swamped at first but complete a few missions and you'll be keen to see the others.

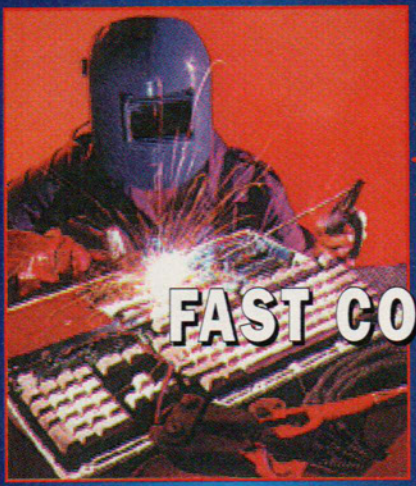
PLAYABILITY: ●●○○○
Tricky at first and cumbersome for the rest of the time. Hard to control and understand.

OVERALL VERDICT:
It's The Settlers without the X factor that made that game such a classic. Sadly.

79%

Amiga Repairs

- 95% success rate on all computers
- Door to door collection of your computer anywhere in the UK



AMIGA 4000 SPECIALISTS

FAST COMPUTERS

144 Tanner Street
Tower Bridge,
London, SE1 2HG
Tel: 0171 252 3553

FAULTY TROUBLESOME COMPUTER??

CALL FOR COLLECTION OR PERSONALLY DELIVER TO THE EXPERTS FOR FAST RELIABLE REPAIR OF YOUR AMIGA

£24.99 PLUS PARTS

NO OBLIGATION FREE QUOTE

WE REPAIR TO COMPONENT LEVEL

A500, A600, 1200, 1500, 2000, 3000, 4000 & CD32

FREE GIFT WITH EVERY REPAIR!! PLEASE SPECIFY

MOUSE MAT..MOUSE HOLDER..
DISK CLEANING KIT..ADD £10 REPLACE MOUSE

BARGAIN HARD DRIVES

Official Government & Educational orders welcome

MasterCard **Tel: 01543 250377** VISA

or send cheques to:

Owl Associates Ltd

Dept 611, Owl House, 5 The Brambles, Lichfield, Staffs WS14 9SE

Normal UK Delivery £2.00, Next Day £7.50
All Prices INCLUDE VAT (@17½%) E & O E

Printer Ribbons

BLACK	1 off	2+	5+	10+
Amstrad DMP2000/3000	2.80	2.65	2.45	2.25
Amstrad PCW8256/LQ3500	2.85	2.70	2.50	2.30
Citizen 120D/LSP10/Swift 24/9	2.85	2.70	2.50	2.30
Epson LQ100	4.10	3.95	3.75	3.55
Epson FX/MX/RX80/FX/LX800	2.90	2.75	2.55	2.35
Panasonic KXP1123/1124/1140	3.46	3.31	3.11	2.91
Panasonic KXP1080/1180/90	2.89	2.74	2.54	2.34
Panasonic KXP2123/2124/2180	4.95	4.80	4.60	4.40
Star LC10/20/100	2.29	2.14	1.94	1.84
Star LC200	3.00	2.85	2.65	2.45
Star LC24 – 10/20/200	2.86	2.71	2.51	2.31
COLOUR				
Citizen 224, 240, Swift 24/9	8.99	8.84	8.64	8.63
Panasonic KXP2123/2124/2180	8.99	8.84	8.64	8.63
Star LC10/20/100	6.00	5.85	5.65	5.25
Star LC200	9.78	9.63	9.43	9.03
Star LC24 – 10/20/200	9.63	9.48	9.28	8.88

These are just a small selection of our Compatible Ribbons – Ring for those not listed

Ring us and *WE WILL BEAT* all other Ribbon prices

Laser Toners

HP Laserjet II/III	35.00 each
HP Laserjet IIP/IIIP	40.00 each
HP Laserjet 4L, 4LM	50.00 each
HP Laserjet 4, 4M	65.00 each
Panasonic KXP-4410/4430	20.00 each
Panasonic KXP-4400/5400	17.00 each

Ring for Toners not listed

High quality re-manufactured toners - originals also available

Miscellaneous Items

100 3½" Disk Labels	1.99	Mouse House	2.99
1000 3½" Disk Labels	8.99	Glass Screen Filter 17"	29.99
1000 White Tractor Feed 3½" Disk Labels	10.99	14"/15"	16.99
3½" Disk Cleaning Kit	2.99	Python 5 Joystick	10.99
Parallel Printer Cable	3.99	Warrior 5 Joystick	10.99
Mouse Mat	2.99	Super Warrior Joystick	15.99
		Skymaster Joystick	29.99

Dust Covers - Ring for prices

Branded CD-R

All supplied with cases

1-9	2.70 each
10-19	2.55 each
20-49	2.45 each
50-99	2.30 each
100+	2.15 each

Disk & CD Boxes

3½" 100 Capacity Box	5.99
3½" 10 Capacity Box	1.50
2 Capacity CD Cases	0.75

3½" Disks

	Bulk DD	Bulk HD	Branded HD
10 disks	£5	£6	£8
25 disks	£10	£11	-
50 disks	£16	£18	£24
100 disks	£29	£33	£46

All disks Certified 100% *ERROR FREE* & Include *FREE* Labels

Inkjet, Bubblejet Cartridges

	Compatible	Original
Apple Stylewriter	–	16.30
Canon BJ 10, 10ex, 10sx, 20	–	16.30
Canon BJ 30, 70 Blk (Pk 3) BCI-10BK	8.00	12.60
Canon BJC 70 Blk (Pk 3) BCI-11BK	7.00	12.50
Canon BJC 70 Col (Pk 2) BCI-11C	11.00	17.20
Canon BJ 200/10/30/40 Black	–	16.30
Canon BJC 210/40 Colour	–	19.90
Canon BJ 300/30	5.20	12.30
Canon BJC 600/10/20 Black	3.00	9.00
Canon BJC 600/10/20 Cyn, Mag or Yel	3.00	7.50
Canon BJC 4000/100/200 Large Black	–	23.50
Canon BJC 4000/100/200 Hd+Blk+Col	–	34.00
Canon BJC 4000/100/200 Small Black	4.00	8.00
Canon BJC 4000/100/200 Small Colour	8.00	14.90
Commodore MPS1270	–	10.80
Commodore IP3300 Blk Head + Refill	–	39.00
Commodore IP3300 Blk Clip-In Refill	–	15.00
Commodore IP3300 Colour	–	33.00
Epson Stylus 400, 800, 800+, 1000 Black	6.00	10.80
Epson Stylus Colour, Pro XL Black	6.00	11.90
Epson Stylus Colour, Pro XL Colour	10.00	22.50
Epson Stylus 820, Colour II/IIS Black	6.00	16.40
Epson Stylus 820, Colour II/IIS Colour	10.00	21.10
Epson Stylus Colour 200 Black	6.00	16.40
Epson Stylus Colour 200 Colour	10.00	22.50
Epson Stylus Colour 400, 600 Black	6.00	17.90
Epson Stylus Colour 400, 600 Colour	10.00	22.00
Epson Stylus Colour 500 Black	6.00	17.90
Epson Stylus Colour 500 Colour	10.00	22.50
HP Deskjet 400, 500/10/20/40/50/60 Black	–	21.00
HP Deskjet 400, 500/40/50/60 Tri-Colour	–	22.50
HP Deskjet Portable, 310/20/40 (High Cap.)	–	19.50
HP Deskjet 600/60/90/93/94 Black	–	23.00
HP Deskjet 600/60/90/93/94 Tri-Colour	–	24.00
HP Deskjet 600/60/90/93/94 Photo Tri-Colour	–	31.80
HP Deskjet 820/50/55/70 Black	–	24.00
HP Deskjet 820/50/55/70 Tri Colour	–	25.50
HP Thinkjet/Quietjet	–	10.80

We also stock other cartridges & refill kits suitable for most inkjet / bubblejet printers. Ring for details & prices for those not listed

Inkjet/Bubblejet Refill Kits

Apple Stylewriter	8.50 for 2 x 20ml Refills
Canon BJ 10/10ex/20/200/230	8.50 for 2 x 20ml Refills
Epson Stylus 400/800/1000	8.50 for 2 x 20ml Refills
Epson Stylus Colour Black	8.00 for 2 x 12ml Refills
Epson Stylus Colour Colour	10.50 for 9ml of each Col
HP Deskjet 500 Series Black	11.00 for 2 x 40ml Refills
HP Deskjet 500 Series Tri-Col	12.00 for 12ml of each Col
Star SJ48	8.50 for 2 x 20ml Refills



With over 700 different Amiga titles in stock Alive is all you ever need

3D Shoot'em ups

Breathless	A1200	£ 9.99
Doom Trilogy	CDrom	£17.99
Final Doom	CDrom	£ 9.99
Gloom 3	CDrom	£12.99
Nemac IV	CDrom	£18.99
Testament	A1200	£ 9.99
Trapped II	CDrom	£17.99

Adventure/Strategy

Blade	CD&disk	£12.99
Cannon Fodder	CD&disk	£ 8.99
Cannon Fodder 2	Allami	£ 8.99
Civilisation	CD&disk	£12.99
Colonization	Allami	£12.99
Dune II	Allami	£ 9.99
Epic	Allami	£12.99
Field of Glory	CD&disk	£12.99
Frontier Elite II	CD&disk	£ 9.99
Heimdall II	A1200	£ 9.99
Hillsea Lido	Allami	£ 9.99
Liberation	CDrom	£14.99
Life & Death	Allami	£14.99
Mobile Warfare	Allami	£12.99
Railrode Tycoon	Allami	£12.99
Simon The Sorcerer	CDrom	£14.99
Speris Legacy	A1200	£14.99
Syndicate	Allami	£14.99
Timekeepers	Allami	£12.99
Theme Park	CD&disk	£12.99
Wax Works	Allami	£12.99

Classic

Bionic Commands	Allami	£ 4.99
Elite	Allami	£ 4.99
Escape Planet Robot	Allami	£ 4.99
Final Fight	Allami	£ 9.99
Gunship	Allami	£ 4.99
Nightbreed	Allami	£ 4.99
Off Shore Warriors	Allami	£ 4.99
Pang	Allami	£ 7.99
Power Drift	Allami	£ 4.99
Red Heat	Allami	£ 7.99
Speedball	Allami	£ 2.99
Street Fighter	Allami	£ 7.99
Strider	Allami	£ 4.99
Three Stooges	Allami	£ 7.99
Thunderblade	Allami	£ 5.99
Vital Light	CDrom	£ 3.99
Xenon 2	Allami	£ 4.99

Platform

Alfred Chicken	A1200	£ 9.99
Beavers	CDrom	£ 9.99
Blobz	Allami	£ 9.99
Bog Rat	Allami	£12.99
Chuck Rock 1&2	CD&disk	£ 9.99
Dennis	CDrom	£ 9.99
Flashback	Allami	£ 9.99
Humans III	A1200	£14.99
James Pond 1&2	CDrom	£14.99
Kang Fu	CDrom	£14.99
Lost Vikings	Allami	£ 9.99
Minsies Abduction	Allami	£ 7.99
Puggsy	Allami	£ 9.99
Ruffian	Allami	£ 4.99
Sleep Walker	CDrom	£ 9.99
Sword	CDrom	£14.99
Zool (1 or 2)	CD&disk	£ 9.99

Shoot/Beat'em up

B17 Flyini Fottress	Allami	£12.99
Banshee	A1200	£ 4.99
Body Blows	A1200	£ 9.99
Chaos Engine 2	A1200	£19.99
Exile	A1200	£ 9.99
Final Odyssey	CDrom	£24.99
Fightin' Spirts	A1200	£14.99
Gun Ship 2000	Allami	£14.99
Jetstrike	CD&disk	£14.99
Rise of the Robots	CD&disk	£ 8.99
Strangers	CDrom	£18.99
Super Street Fighter2	A1200	£14.99
Uropa 2	CDrom	£24.99
Walker	Allami	£14.99
Wendetta	CDrom	£15.99
WWF Euro Tour	Allami	£ 9.99
XP8	A1200	£ 7.99

Sports

Brian Lara 96	A1200	£ 9.99
KinPin	A1200	£ 9.99
Nick Faldos Golf	CD&disk	£ 9.99
Fifa Soccer	Allami	£12.99
Flyin High	CD&disk	£14.99
Pinball Prelude	A1200	£12.99
Pga Euro Tour	A1200	£12.99
Slamtilt	A1200	£12.99
Super Skidmarks+	CDrom	£12.99
Super Tennis Champs	Allami	£ 9.99
SWOS 97/98	Allami	£12.99
Virtual Karting 2	A1200	£14.99

We are the company that is dedicated exclusively on Amiga games, only Alive can offer you that



ON THIS MONTH'S CD

AFCD29:-ReaderStuff-/-ReaderGames-

Dip your toes in the cooling pool of home-grown Amiga talent. These are, of course, the...

Reader Games

Although we're living in a world gone mad, it's good to know there are little islands of normality still to be found. Except you won't find 'em here. Welcome to the part of the magazine that gives *Amiga Format* readers the chance to show their gaming talents.

Reader Games are exactly what they say on the box – games made by you, the *AF* readers. They don't come in fancy packages, you can't buy them at your nearest Electronics Boutique and they aren't going to win any prizes for their production values.

However, they are the fruits of countless hours of imagination and dedication as our readers try to keep the Amiga games' fires stoked by making their own little floppies of fun.

The idea here's not to actually rate the games, merely to offer help and advice on how they could possibly be improved (though frankly, there's just no hope for some of them). A little tweak here and a little twist there could be just what one of these rough diamonds needs to make it sparkle as it truly could.

This kind of help and advice is invaluable enough and should be all the incentive any budding games designer needs, but in case even that doesn't get your fingers tapping at the keyboard, consider how we also pay out a lovely £50 to the author of the best game each month.

Read through this month's selection, decide how you could spend £50 and get coding the game that'll blow everyone's socks off. Onwards...

£50 AF Winner!

KING OF THE CASTLE



So that means I've got to find another way in. Fortunately, I know there's a jetty over on the left-hand side leading to a door...

Remember the old game *Driller* from Incentive that introduced gamers to the world of Freescape? Although it was more impressive on the 8-bit machines, it was still pretty good on the Amiga and went on to become the engine of Incentive's *3D Construction Kit.*

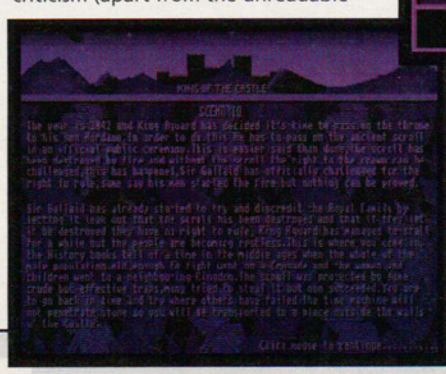
Bob certainly remembers it well and by using that very same construction kit, with a bit of jiggling from Amos, he's created his own first-person 3D adventure.

The object of the exercise is to find and retrieve some sort of scroll from within a castle. Moving around is controlled through a series of icons at the bottom of the screen. Simply move the cross-hair sight from the main window and it becomes a pointer, making everything very easy to control.

The whole castle is awash with puzzles (even getting into the thing is difficult – head to the left and onto the jetty, then turn round and crawl through the doorway) as you attempt to deactivate traps left, right and centre. You're armed with a laser which is fired by simply pressing the mouse button and you often have to fire at objects to either get them to activate or give you a piece of information. And, of course, should you come across anything that's hostile, well you'll want to blast away at that too.

This is an excellent game from Bob, it's smooth and fast and will keep puzzlers happy for a goodly amount of time. Possibly the only real criticism (apart from the unreadable intro text) is that it's not actually doing a great deal that's new. Switches for this or that trap can always be found after a bit of looking and you can't help feeling you've done this all before. That aside, this is quality stuff Bob, so here's hoping this month's £50 prize keeps you coding a little bit longer.





If you're going to write a load of background stuff (left), then at least make it easy to read. Moving cautiously forward (above).

AUTHOR: Bob Hindle
LANGUAGE: Amos
VERDICT: This is an excellent first-person adventure. Making the scenario text readable at the beginning of the game might have added an extra element of atmosphere, though.

READER WARRANT

When you're sending in your submissions make sure you also give us:
1. An address where you can be contacted.
2. Details of the language used to create the game.
3. A recent photo of yourself.
The address to send your stuff into is:
Reader Games • Amiga Format 30 Monmouth St. • Bath • BA1 2BW
Everything included on the *AFCD* must have a reader warrant with it. Just cut it out off this page, sign it and send it in to us with your game and a recent photograph of yourself. A last reminder: if you don't include this warrant we simply won't be able to put your game on the CD – that means you won't be able to have it judged by other readers.

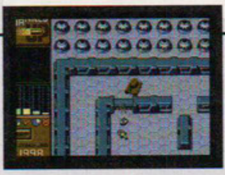
In respect of all material which forms my reader contribution to Future Publishing's *Amiga Format*, I hereby warrant that:-
1. The material is original and does not infringe any other material or rights;
2. The material does not contain any material which is defamatory, obscene or indecent and is exempt from classification under the Video Recordings Act 1984;
3. That there are no legal claims against the material provided;
4. That I have full power and authority to provide this material to Future Publishing.

Signature: ______________________________

TANKED UP



Left click the mouse to get your tank to move to the cross-hair and right click it to fire at the cross-hair (ammunition permitting).





Games with tanks in them aren't uncommon here at Reader Games but it's rare that they're as good as this. You're in charge of a little tank trapped in one of a dozen or so mazes. In most cases you've got to reach the exit before the time limit runs out. Oh yes, and avoid being blown up by the other tanks that trundle around.

Controlling your tank is wonderfully easy as you just point and click the cross hair around the screen and your tank trundles towards it (with the turret impressively following your mouse pointer as you move it around).

Shooting's easy too – simply press the right mouse button when you make contact with an enemy and you'll fire rockets at 'em. What isn't so easy is getting your tank to go just where you want it. The mazes invariably have several 'rooms' you can go into (to pick up bonus armour, rockets and what have you) and though it's easy to get into them, your tank can have a bit of a problem sometimes. This isn't a huge hassle because a few more clicks, perhaps giving the corner a bit of a wider berth, should see your tank on its merry way.

This is jolly good stuff and I only have one major problem with it – the time limits are just too mean. You start a level, spend a couple of minutes orientating yourself and collecting that extra armour bonus (on some levels you start with none so the first hit you take kills you) when you're informed that it's game over time. A shame really, as this is quality stuff.

The tank movement is impressive, the graphics are good and the idea is simple but well executed. If only there was more time to play each maze, this would be this month's prize winner. Still, maybe for *Tanked Up 2*, eh?



AUTHOR: R Strickland
LANGUAGE: Unknown
VERDICT: A great little game that shoots itself in the foot by not giving the player enough time to wander around and maybe even develop some tactics.

KEEPER OF THE CRYPT

Typical, isn't it? You don't see a first-person adventure game for months and then two come at once. Unlike *King of the Castle*, this is much more your *Dungeon Master* type of game. You're trapped in a dungeon and move around using the familiar icons at the bottom of the screen. However, instead of it all moving in smooth real-time, you get the old jump forward scenario.

And why are you wandering around this dungeon? Well, to rescue the Book of Souls, or something. And how ya gonna get that? By solving simple riddles, that's how.

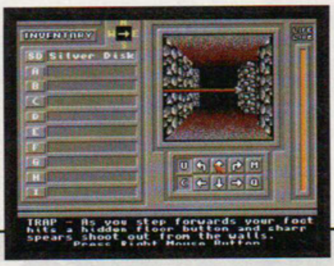
You start the game with a silver disk (I'm sure he actually means disc rather than the abbreviation of diskette) and by finding small alcoves and reading their riddles you gain other items. Basically, you find the alcove that wants a silver disc, you shove yours in and get a crystal. Now you find the alcove that wants a crystal and so on and so forth.

There's a whole series of traps that you can't avoid too. You can be walking along when suddenly a spear jabs you in the side and you've lost some health. There's no way to avoid the traps but you can miss them if the game, randomly, decides you were moving quickly enough to avoid it.

Putting objects in the wrong alcove is also a sure way to lose health so think carefully before trying all your items in an alcove willy-nilly, which is what you'd do if you were playing any other adventure game.

The game doesn't manage to generate much excitement. Plodding around, running into unavoidable traps and looking in alcoves is not a hugely entertaining pastime.

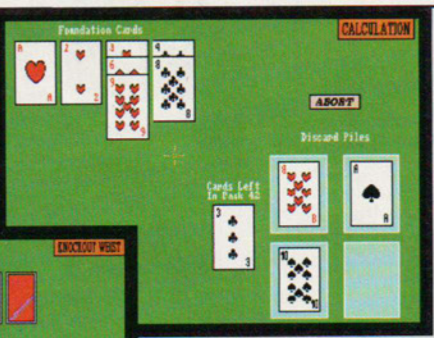


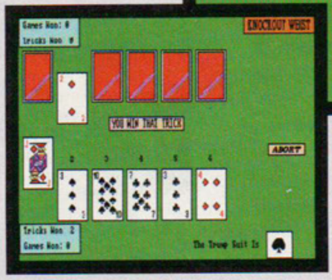


Moving through the dungeon, you're hit by a not very believable spear. Ouch. Ooh.

AUTHOR: Terry Belch
LANGUAGE: Amos Pro
VERDICT: A well put together game that does everything it should but fire the imagination. Oh, and the spelling's a bit dodgy in places too.

CARD PRO 2





There's got to be some weird Patience variant in this lot to satisfy everyone. And there are even some two player games too!

And to round us off this month is another old fave at Reader Games – the compilation of card games.

Oh yes, we've had dedicated *Cribbage* games before (Nick's faves) and we've had compilations before but I don't think we've had one that's quite as good as this. Not only have you got *Cribbage, Whist, Pairs, Find the Lady* and *Seven Card Brag* but there are a half dozen other card games to play as well.

Some of the games are purely *Patience*, while the others require an opponent – the computer, so this is ideal for someone who wants to play a decent game of cards and either hasn't got any mates or any cards.

Card Pro 2 does just what a card game should do. None of the designs are hard on the eyes (you can even design your own if you like) and all the text is easy to read.

Control is via the mouse and is simple enough and there's even an on-line help function to get you out of that tricky situation you've got yourself into.

Card games aren't terribly exciting but Ian's done everything right here, making it easy to play and varied enough to keep you plugging away. The version of *Tiles* is very enjoyable (you know the one, where you have to move things around in a small frame and you've only got one space so you keep having to slide everything around) as is Ian's personal favourite, *Calculations.*

AUTHOR: Ian Cumberlidge
LANGUAGE: Unknown
VERDICT: Not terribly exciting but well presented and easy to play. There are enough games here to keep any card game fan happy.

Latest CD Games

SHADOW OF THE 3rd MOON
3D flight-simulator featuring State of the Art graphics, sound and animation. *Highly Rated Worldwide!* It's like no other game on the Amiga.
Requires 6mb ram and at least 030 processor.
Order: CD562x £19.99

VIRTUAL KARTING 2
Forget those boring "flat" 3D-racing games. Virtual Karting2 is the fastest Karting Simulation available. Suitable for any AGA Amiga but on an 030 it really moves!!!
Order: CD597 £14.99

DOOM TRILOGY(3cd's)
Suitable for any AGA Amiga with 8mb ram, Graphic Card Enhanced. 030 or above recommended.
Order: CD600
Only £17.99

FOUNDATION
A real-time strategy war game incorporating familiar strategy elements with interseting newconcepts.
Order: CD581 £27.99

GENETIC SPECIES
Furiously invigorating and thrilling 3D action with texture mapping speeds never before seen on any Amiga game.
Order: CD482 £27.99

More Great CD Games!

£12.99 · £12.99 · £12.99
£12.99 · £19.99 · £19.99
£19.99 · £14.99 · £27.99
£12.99 · £14.99 · £5.99
£9.99 · £4.99 · £14.99

TEN OUT OF TEN EDUCATION

MATHS ALGEBRA upto16
GEOGRAPHY ages5-12
ESSENTIAL MATHS ages5-12
ESSENTIAL SCIENCE ages5-12
STRUCTURED SPELLING ages3-9
GERMAN ages8-16
MATHS GEOMETRY upto16
MATHS STATISTICS ages5-12
JUNIOR ESSENTIALS ages5-11
EARLY ESSENTIALS ages3-7
MATHS NUMBER upto16
TABLES all ages
WORDS ages5-11

only £9.99 each
Any 3 for just £20

other award winning 10/10 titles available!

Audio CD's

FILTHIEST PARTY ALBUM - 14 **Adult** audio tracks including: Hey Santa Claus, Who the ???? is Alice?, The ?an?er Song etc.
Order: MUS01 £9.99

THE THEME OF AMIGA
The official Amiga theme tune "Back for the future". Available exclusively from Epic!
Order: AMIGAT £5.00

BACK IN TIME
15 All time classic C64 tunes re-mixed onto Audio CD. Tracks by Rob Hubbard etc.
Order: MUS64 £12.99

Productivity

DELUXE PAINT 5
Deluxe Paint as a product is the envy the the whole PC world, It's features and ease of use are not matched by any other graphics package either on the Amiga or PC. Deluxe Paint 5, the latest release, is no exception. Deluxe Paint 5 is without a doubt the fastest paint package available on the Amiga, It's unique palette feature supports virtually all the Amiga's graphics modes. Deluxe Paint 5 includes the most powerful yet simplest to use animation feature you could imagine. Direct support for all the Amiga's animation formats are included as well as of course the industry standard IFF picture format. Includes full printed manual.
EXCLUSIVE! *Supplied with a free bonus CD containing Colour Fonts, Clipart, Piccys etc.*
Order: CD499 Only £17.99

SOUND EFFECTS VOL:1
Over 15,000 files. Includes sound effects from all over the place, including Animals, Nature, Horror, House, Crash, Explosions etc, etc.
Order: CD165x £9.99

BLITZ BASIC 2.1
A next generation BASIC with features borrowed from PASCAL, C and others. Program any type of software with more power than ever before. Complete with full manual. Also available on floppy disk. The Special CD version also contains the complete series of BUMs (Blitz User Manuals)
EXCLUSIVE! *Supplied with free bonus CD containing source-code, graphics, fonts & samples.*
Order: CD500 £17.99

ELASTIC DREAMS
Contains both PPC and Amiga versions of the Amiga's answer to KAI's Power Goo. Powerful graphics manipulation tool. See press for review.
Order: CD604 £49.99

ART STUDIO PRO
Image cataloguer, converter and processor. Supports IFF, ANIM, AVI, MPEG, MOV, FLC, GIF, TIF, PCX, PHOTO CD and all the rest, including TIM (Playstation image format).
Full specs are available on request.
Order: CD603 £44.99

100% COLOUR CLIPS
100% Colour Clips is a brand new original collection of thousands of high quality GIF and IFF clipart images. Includes cats, birds, office equipment, household items, trees and dozens more.
Order: CD621 £9.99

BUY BOTH CLIPART CD'S FOR JUST £15

100% MONO CLIPS
100% Mono Clips is a brand new original collection of over 10,000 high quality GIF and IFF clipart images. Includes Eye-catchers, Animals, Vehiclas, Symbols, Xmas, Wedding art and more.
Order: CD622 £9.99

MAGIC WORKBENCH
Magic Workbench Enhancer is a stylish Amiga CD-ROM containing not only Magic Workbench but also around *10,000 new Workbench Icons, Backdrops and Desktop tools.* Enhance Workbench even more.
Order: CD187x £14.99

DESKTOP VIDEO CD VOL:2
Amiga Desktop Video CD volume 2 contains hundreds of megabytes of Video related backdrops, fonts, samples, and clip images. The CD also includes a **full version of Scala**.
Order: CD404x £9.99

20,000 WEB GRAPHICS
This comprehensive resource has everything you need to help you develop a professional looking web site. Includes over 7,000 animated GIFS, as well as 13,000 fast-loading buttons, flags, banners, dividers, symbols, bullets, arrows, alphabets and more, ALL ROYALTY FREE!.
Order: CD584 £9.99

MICK DAVIS' CARTOON CLIPART
Over 500 Hand-drawn professionally finished mono cartoon images. (IFF & GIF)
Order: CD235 £19.99

CD32 Titles

From only £2.99

01.Vital Light £2.99
12.Marvins Marvelous Adv.£2.99
14.Gaurdian £2.99
16.Chaos Engine £2.99
17.Alfred Chicken £2.99
19.Chuck Rock £2.99
22.John Barnes Football £2.99
23.Last Ninja 3 £2.99
31.Total Carnage £2.99
34.Oscar & Diggers £2.99
43.Video Creator £2.99
44.International Karate + £2.99
50.Super League Manager £2.99
51.Bubble & Squeak £2.99
53.Naughty Ones £2.99
54.Clockwiser £2.99
CD580. Fields Of Glory £14.99
CD501.Cannon Fodder £4.99
CD493.Super Skidmarks £12.99
CD563.Simon the Sorcerer £14.99

Other titles available.... Most are suitable for use on A1200's with CD-ROM drive!

Games Collections

ARCADE CLASSICS PLUS
Arcade Classics Plus includes hundreds of variations of all the classic arcade games, such as *Pacman, Invaders, Tron, Galaxians , Frogger, Tempest, C64 conversions, Q-Bert, Trail Blazer, Scramble, Ping-Pong, Pengo, Missile command, Breakout, Bezerk, Donkey Kong, Tetris* and tons more great games.
Order: CD76 £14.99

THE GAMES ROOM
The Games Room is an original compilation of Gambling games. It covers everything from Fruit Machines to Card Games, including Klondike, Poker, Solitaire, Rummy, BlackJack, and Roulette, Darts, Bingo, Pool, Checkers, Chess, Backgammon, Dominoes, Various Board Games like Monopoly and Cluedo, Mastermind, Pub Quiz's and a wealth of other Casino related games and far more...
Order: CD451 £12.99

NOTHING BUT TETRIS
Around 100 variations of the all-time classic game "Tetris". All the games are runnable from the CD.
Makes a great gift for anyone!
Order: CD148 £9.99

Latest CD Games

SIMON THE SORCERER
"Simon the Sorcerer" is one of the Amiga's most loved graphic adventures."The animation has to be seen to be believed." CUAmiga
The voice of simon is Chris Barrie (Mr Britas).
Suitable for Amiga CD / CD32
Order: CD563 £14.99

SIXTH SENSE Investigations
SixthSense Investigations is an amazing new Amiga arcade adventure, featuring 32 locations, full character dialog, 3 different worlds, many interactive characters, puzzles and more. This game sets new standards for Amiga gaming. Based on the classic style of LucasArts Graphic Adventures.
System-requirements:
Amiga1200/4000/CD32
2mb ram, 4mb Recommended.
Order: CD430 £29.99

Adult CD's

ANIME BABES SPECIAL EDITION
Thousands of high quality Manga style GIF Images. Contains scenes of nudity and sex.
Order: CD491 £19.99

ANIME BABES VOLUME ONE
Thousands of high quality Manga style GIF Images.
Order: CD191x £14.99

Applications

MINI OFFICE
This superb easy to use office suite is great for the home and small business, It includes a Word Processor with a spell checker, Database, Spreadsheet and more.
Order: MINIOFFICE £17.99

BLITZ BASIC 2.1
A next generation BASIC with features borrowed from PASCAL, C and others. Program any type of software with more power than ever before. Complete with full manual. Includes full manuals.
Order: BLITZ £17.99

DELUXE PAINT 5
Deluxe Paint 5 is without a doubt the fastest paint package available on the Amiga. Deluxe Paint 5 includes the most powerful yet simplest to use animation feature you could imagine. Includes full manuals.
Order: DPAINT £17.99

CRAFT FOR AMOS
Adds over 120 new commands to Amos and Amos Professional. Great for every Amos user.
Order: CRAFT £9.99

INTER SPREAD
Interspread supports over TEN MILLION cells at once. Data can be represented graphically using pie charts and bar graphs etc.
Order: INTERSPREAD £5

AMI-PC LINKUP
Network your Amiga upto a PC and make use of ALL it's drives, Including: CD-ROM, Zip, Hard drive High-Density Floppy etc, etc.
Order: AMI-PC LINKUP £17.99

MOUSE-IT
Allows connection of virtually any PC mouse, Trackball or pointing device to the Amiga. Plugs into your serial port.
Order: MOUSEIT £7.99

INTER BASE
Quick and easy to use, Interbase is the perfect solution when it comes to Amiga databases, easily transfer data from interbase into other supported applications, print labels etc.
Order: INTERBASE £5

AVId PROFESSIONAL
The fastest and most powerful AVI player for the Amiga. Includes versions for A500+ / A600 / A1200 / A4000 and A5000.
Order: AVID £poa

BURN IT V2.1
BurnIT is the Amiga's most powerful CD-R burning software. Can create audio and data CD's. Easy to use and supports 60+ CD-R drives.
Order: BURNIT Standard: £34.99
Order: BURNIT Professional: £69.99

TURBO PRINT 6.02
The ingenious printer driver system: TurboPrint prints the full colour spectrum directly from your favourite software package. Print at the very best quality! (Supports all the latest printers)
Order: TURBOPRINT : £39.99

Adult CD's

ADULT SENSATION VOL:1
4000 high quality GIF Images.
Order: CD01x £7.99

ADULT SENSATION VOL: 2
4000 images, 70's images, a few games, Animations, Adult stories, Adult music and samples and much more.
Order: CD115x £7.99

ADULT SENSATION 3D
1000 Adult 3D images, complete with 3D glasses. *Watch yourself with this one!*
Order: CD145x £7.99

ADULT SENSATION VOL: 5
Volume 5 consists of dozens of Adult related games like: Strip Poker, Tetris Sex, Adult Fairy Tales, Friday Night Pool and more.
Order: CD567 £19.99

These "Adult" titles are strictly for purchase by Adults over the age of 18 Only. We hold over 50 different Adult titles in stock. So please call for a catalogue.

GameBusters

Myst part 2

Andy Smith continues his bare-bones guide through the surreal world that is Myst...



Now we've worked through the first four basic puzzles (the tree, the gears, the ship and the spaceship) it's time to start jumping through time and unravelling this convoluted mystery. Let's start with...

THE STONESHIP AGE

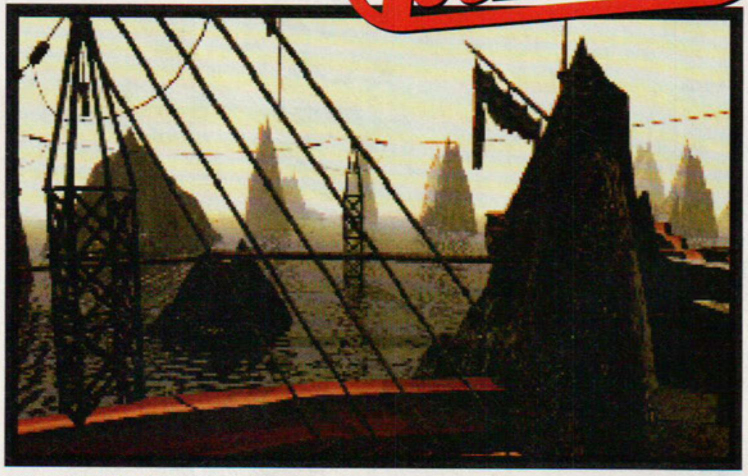




A blue page! Pick this up and stick it in the right book to find out a little bit more about the history of Myst.

▼ Go to the other half of the ship, up the stairs and look through the telescope to find the lighthouse (it's at 135 degrees). Go to the umbrella and push the rightmost button to drain the lighthouse. Go down to the basement now and drain the chest by opening and then closing the valve at the bottom. Go back to the umbrella and let the lighthouse fill up again.





Upon awakening, Nelson wondered just how much grog he'd consumed the night before...

▼ Unlock the now floating chest and get the key and open the lighthouse. Crank up the generator and power the battery. Note that it's slightly discharging so move quickly (if the lights go out, go back to the generator and crank it up some more).



▼ Go to the umbrella again, press the middle button to drain the rock and go inside. Go all the way down the tunnel and find the page for either of the brothers and just generally look around for a bit. You should find half of an important note in the map drawer in Achenar's room (that's the messy one).

> **"Go all the way down the tunnel and find the page for either of the brothers and just generally look around for a bit."**



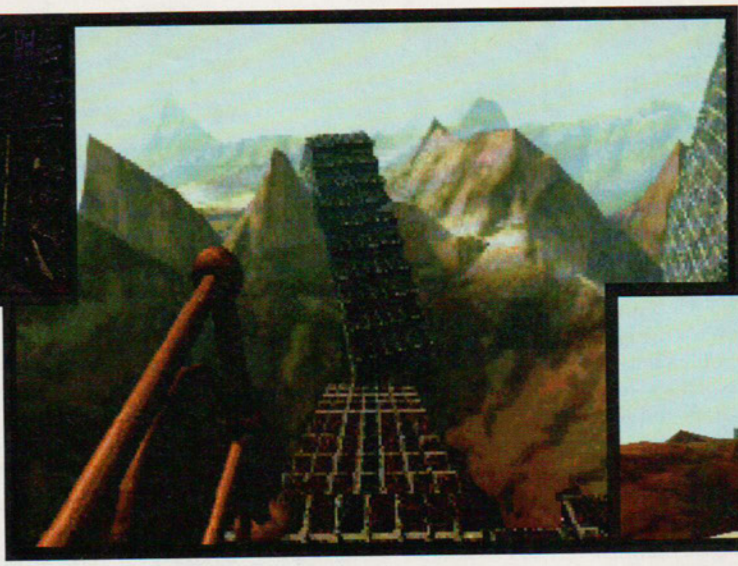
This lovely ancient sphere resides in the corner of editor Nick Veitch's luxurious office. He's got absolutely no idea what it's for.

▼ Now go back to the red-lined panel on one of the walls. Inside, you'll find a compass rose, just like the one in the Stoneship book. Push the south east button (the clue's 135 degrees) and this will turn on the submersible's lights. Drain the ship with the leftmost button and go in.

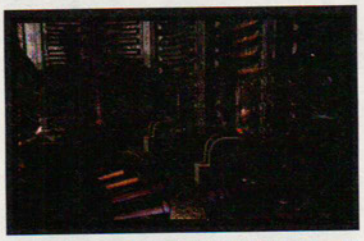
▼ Click on the desk in the lower level and the book leading back to Myst will pop up.



Sumptuous graphics, but without our lovely guide you won't know what you're supposed to be doing!


No. I give up. What on earth is this all about? Is it time to catch the last spaceship home or summat?

See, if this was me I wouldn't be tempted to touch a damn thing. Oh no. I'd leave well alone.

SELENITIC AGE

▼ Find the five microphones: water, fire (thunder), clock, crystal (flute) and wind, then turn each one on. You'll also fine the red and blue pages at the crystal and water microphones respectively.

▼ Go to the microwave tower through the wind tunnel and aim each of the five dishes in the right direction (using sounds, icons and places as a guide, the co-ordinates are: water: 153.4, fire: 130.3, clock: 55.6, crystal: 15.0, and wind: 212.2).

▼ Push the sigma button as this will give you the sound sequence to open the door near the spaceship (crystal, water, wind, fire, clock). Go in and get in the underground craft and press forward. At each station, listen for a sound that will indicate a direction. If you miss it, press the button on the speaker. The sounds are 'plink' for north, 'bloop' for west, 'plonk' for south and 'shhh' for east (yes, well, apologies for the dreadful sound descriptions there, but when you've heard 'em you'll understand. Honest). The combination of sounds indicate directions like NW, SE and so on. The sequence of directions to get to the Myst book is: N, W, N, E, E, S, S, W, SW, W, NW, NE, N, SE. Now get out and find the Myst book.

MECHANICAL AGE:

▼ The pages for the brothers are in the secret rooms accessible from their chambers. Explore next to the 'throne' in each room. Go to the 'tube' and press the button in the hallway. The floor will reveal a lower room. Go down there and rotate the tube until the red icon shows. Be careful not to let the tube rotate past the red icon!

> "Practise on the simulator until you **get the timing right** because you won't be able to see the orientation of the tower..."



▼ Go back out and you'll see that the tube held down an elevator. Press the wall button again to close the floor and enter the elevator.

▼ Press the up button, then press the middle button and exit the lift before it goes down. The building rotation controls are above the lift.

▼ Enter the rotation controls and rotate the tower to the next two islands. They have symbols for the control next to where you entered the Age. Use the simulator in Achenar's room to practise how to rotate the tower. The method used here was: Put the left lever up one



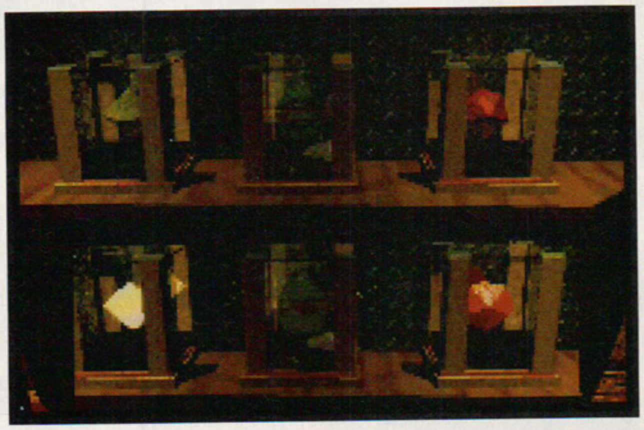
For sale: well lit, characteristic des res in quiet dimension...

continued overleaf ➡





Bruce Willis lived in this for a couple of months in Twelve Monkeys, didn't he? During his dribbling phase.



Helping Hands

MONKEY ISLAND

Dear *AF*,

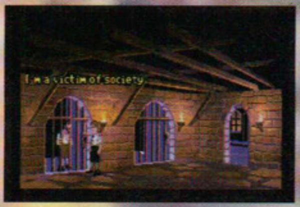
I'm stuck on The Secret of Monkey Island as I can't seem to find the Swordmaster. Can you please help?

Joe McIlwraith, Notts.

Sure, Joe. Go to the fork in the road and then go north. You should see a plant with yellow flowers. Pick the flowers. Go north, then east, east again and then west and north. You should see a signpost. Push it to lower the bridge. Cross the bridge and you will find the Swordmaster.

Once she's been found once you can go to her directly from the map screen.

To defeat her, you need to respond correctly to her five insults and once she's beaten she'll give you something to prove her defeat.



Mr. Dahmer's naive plea did nothing to reduce his sentence.

MONKEY ISLAND 2

Dear *AF*,

I wrote in a couple of month's ago but didn't explain my problem properly. I'm actually stuck on the first section of Monkey Island 2 and need something of the thread. Thanks for any help.

S. Connor, Liverpool.

Easy peasy, mate. Take the bucket from the laundry and fill it with mud from the swamp. Go back to Largo's room, close the door and use the bucket on the door. Wait for Largo to enter and follow him to the laundry.

The claim ticket you need will be taped to the back of his door. Give this to Marty to claim Largo's underwear. Now you just have to take all the ingredients to the voodoo lady...



Monkey Island. It's got a secret, y'know.



Well it's obvious, isn't it? Plus a half moon equals a tunnel with a triangle? Erm, if you get clamped, watch out for punctured balls and rubber stamps?

notch and hold the right lever all the way up for about seven seconds. Let go of the right lever and quickly put the left lever back down.

▼ Practise on the simulator until you get the timing right because you won't be able to see the orientation of the tower, just some motion in the gears. Once the tower stops, it'll make a sound for each of the four compass directions, the same sounds as for the Selenetic age, above.

▼ The control panel next to where you entered opens the room where the Myst book is. The symbols are: an O with the bottom cut out, a point down triangle, a rectangle, a point up triangle, a circle over three triangles, a left half circle (filled in). These things are a lot easier to spot than they sound.

CHANNELWOOD AGE

▼ Go to the windmill and turn the water on with the tap on the floor. The pulldown lever is a red herring. Go back down and use the switches in the pipeline to control the water flow to the first lift (not the one next to the staircase!).

▼ Climb into the lift and close the door and use the lift to go up.



Jane despaired. No matter how often she told Tarzan, he just couldn't keep his room tidy.





More dreamy pictures from Myst that will only make sense when you follow our dreamy guide.





▼ Once you're up here, find the control to open/close the staircase. Go to it and climb down. Open the door and use the pipeline switches to send water to the generator next to it. Climb back up the stairs and use the lift there.

▼ Find the rooms for both brothers (and Achenar's 'temple') and their pages can be found there. In Sirrus' room (the tidy one), find the other half of the note that you found in the Stoneship age.

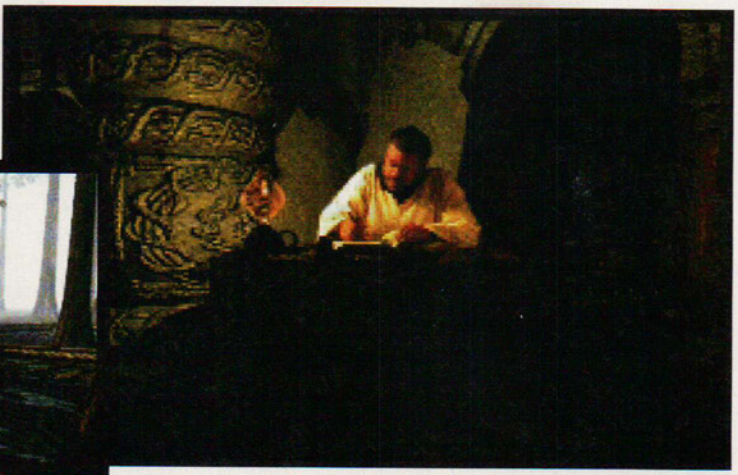
▼ Use the switches to turn on the lonely-looking generator close to where you entered the world. Turn it on and watch the catwalk appear from the water. Walk to the other side, down the other walkway and find the crank to extend the pipeline back to the main line. Use the switches to turn on the elevator there and climb up to find the Myst book.

▼ If you've having trouble figuring out where the water is going in the pipelines, listen as you walk past them. If you can't hear the noise of water, that section of the pipeline has no water. Alternatively, you could just trace the water from the windmill, checking every Y junction as you pass.

DUNNY AGE

▼ When you return four pages to either brother he'll give you the same info: go to the library, pick the right-





"Ahem. Could you point me to the section on double-entry book-keeping please?"



The sound of a police siren broke the silence. 007 considered the options: left, right or middle.

end book in the centre shelf and look up diagram 158.

▼ Go to the chimney, press the button and enter the diagram below on the plate. Now press the button again and you'll see the green book (Dunny Age), the blue page and the red page.

Diagram 158

(Click where there is an X.)

X	X	O	O	O	O	X	X
O	X	X	O	X	O	X	X
X	O	X	O	O	O	X	X
X	O	O	X	O	O	X	X
X	X	O	O	X	X	O	O
X	X	X	X	X	O	X	O

There are four endings:

▼ Give the last blue page (Achenar traps you).

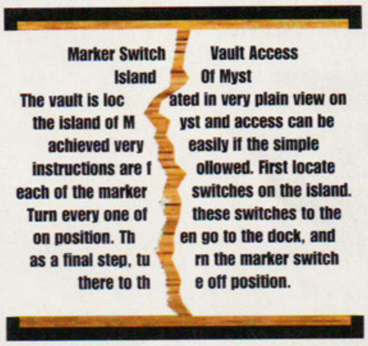
▼ Give the last red page (Sirrus traps you).

▼ Go to Dunny Age without the yellow page (your stupidity traps you).

▼ Go to the Dunny Age with the yellow page (Dad goes back, destroys both books, congratulates you and asks you to stick around for some further adventures).

▼ The yellow page is in the vault. To get to the vault, follow the directions in the two halves of the note (right, complete with tear...).

There you go folks – that's it!



CASTLE KINGDOMS

Here's a handy cheat for anyone stuck on Mutation's adventure game (now available on the Mutation Gold Compilation along with *Tin Toy Adventure*, *Tommy Gun*, *Doodlebug* and *Cyber Punks*).

Press P to pause the game and press and hold A, R and C. While still holding these keys, press fire. The screen will flash, letting you know it has worked. You will now have infinite keys and health and can use the F1 to F5 keys to skip to the corresponding levels. Press F6 to skip right to the end.



"So, Lola, did I mention that I write captions on Amiga Format magazine?" said Andy. Lola yawned.

UROPA 2

Here are a couple of tippets for Vulcan's excellent droid-em-up. More tips for this game would be appreciated folks, as I'd like to run a complete solution sometime. Meanwhile...

General tips

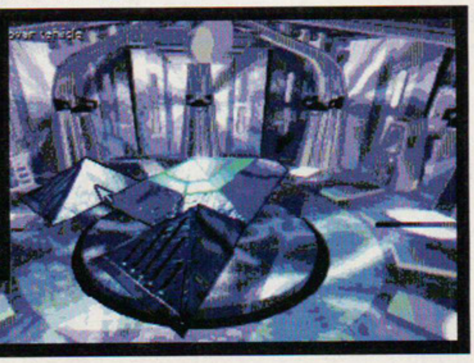
Search everywhere and everything. Check for secret doors, access any terminals and buy and use weapon modules when you can. Save the game after every encounter and make sure you use different suffixes (01, 02 etc) as the missions directly follow on from each other.

Blackout Mission

1. Visit the workers' quarters and the living quarters first and make sure the colonists stay put. Search everything.
2. Retrieve the only item in the research stores (transporter I.C.) and ignore the droid as it will ignore you unless provoked.
3. Transport to translink 1, set the T.E.D. to 20 seconds, drop it next to the red security door and then run away (transport back to the main transporter).
4. Wait for the explosion and then insert the I.C. into the transporter and return to translink 1. The red door is now blue so you can open it.
5. Enter the room and, again, ignore the droids (they think you're the commander, see) and access the security computer and unlock the doors and note down the code.
6. The real commander is NW of the second security room. Blow him up with a T.E.D.
7. Finally, you'll need to get the explosive up in the armoury, but get it quickly because the Kapones steal it if you're not fast enough.



Now surely these mushrooms are supposed to be on the pizzas, not running around next to them?



Helping Hands

FLIGHT OF THE AMAZON QUEEN

Dear Helping Hands,

I'm stuck in Flight of the Amazon Queen. Why can't I find anything in the library?

Elaine Tetley
Wakefield

Hmm, a bit more detail would help, Elaine. You must be stuck at the Floda camp library, right? In which case, go to Trader Bob's and give Naomi the perfume. Go outside and use the knife on the coconut. Talk to the witch doctor, tell her about a rash cure and give her the coconut and vacuum cleaner. Go to the Floda camp and pick up the flower.

Go inside and walk past the secretary. She'll stop you so tell her that you're the fumigator. Go to the kitchen and talk to the cook. Give him the banana and pick up the dog food and the cheese bits. Go right, open the mail bag and look at it. Open the foot locker and pick up the squeaky toy.

Go outside and give the squeaky toy to the dog. Now go to the jungle and give the flower to the sloth. Use the scissors on the sloth and give the hair to the witch doctor. Go to the jungle and give the potion to Bud. Go to Trader Bob's, buy the record, then go to the Floda camp library and look at the couch.

SEND US YOUR TIPS!



If you've got some hints, cheats, tips or general good advice on any Amiga games – especially some of the newer ones like Uropa2, Quake or whatever, then don't keep them to yourself – send them in so we can pass 'em on to other gamers out there who might be having more problems than you.

Also, if you've got a query about a game (and no, I don't really mind people asking about The Secret of Monkey Island), then drop us a line and we might be able to answer it in Helping Hands.

HELPING HANDS • Amiga Format
30 Monmouth Street • Bath • BA1 2BW



PD Select

Dave Cusick ploughs methodically through the latest sackful of the best PD and Shareware stuff.

Rites of Hell

BY: Ben Wright
WARE: Free
PD LIBRARY: Roberta Smith DTP
NUMBER OF DISKS: One
PRICE: 90p plus 50p P&P

Ben Wright, who incidentally lives in Portishead, the town near Bristol from which the famous trip-hoppy combo took their name, has produced a fair few music disks of late. Every few weeks another one seems to pop through the PD Select postbox.

Not having been to Portishead I wouldn't really know, but I do suspect that there must be something particularly bleak about the place.

Friends I know who have been tell me that it's quite a pretty little seaside town, but clearly something dark lurks beneath the peaceful façade.

The music produced by the band Portishead, for all its brilliance, could scarcely be described as cheery, and Ben Wright's compositions are invariably exceedingly depressing affairs, generally featuring crashing guitar samples and discordant organ effects.

The five modules on this disk are typically capable of driving even the most contented of listeners into a state of deep despondency.

Unseen Masters is a four minute amalgam of sorrowful strings and woodwind, whilst *Inferno* could provide the soundtrack for a horror B-movie, its plaintive marimba rapidly giving way to loud guitars and banging drums.

Devoured By Demons is similarly noisy, with a frantic hi-hat line underpinning some ringing power chords, and the gloriously named *Crematorium* is hewn from the same cold mountainside of music. Finally, *Tranquality* meanders back into the lands of melancholia. And that, dark title picture aside, is it. As with

SHAREWORLD #9



The amateur looks hide some very interesting stuff.

Issue nine of "The international diskmag for Amiga Shareware and PD Authors and the Discerning User", released on 20th April 1998, is a fairly well produced affair. There's an interesting editorial which, although it suffers by virtue of the fact that it was written around a month before Amiga Inc.'s announcement at the World of Amiga convention, nevertheless makes for fascinating reading.

If you're as keen as I am to gauge the opinions of other Amiga users as to the direction in which the platform will go then you'll enjoy reading this piece, especially since we all now know a lot more about Gateway's plans than Carl Read knew at the time he wrote it. He anticipated that new Amiga machines would be PowerPC based, but his ideas on a versatile piece of core hardware with numerous applications are a lot closer to those which Jeff Schindler spelled out to the assembled throng in London. Notable articles by contributors include a superb piece on WebCams, as well as reviews of *BeatBox*, a software drum machine, a couple of short story disks and a host of assorted oddities in a section entitled "Other Worlds". Amongst this curious collection you'll find a James Joycean outpouring, articles on primitive man, megalithic structures and dreams and a selection of truly groanworthy jokes.

Strangely, parts of *ShareWorld* have a disappointingly amateurish feel. For example, there's a piece on copyright law which, as Carl acknowledges at one point, is totally inaccurate in several respects. (You don't need to be an expert on Intellectual Property law in New Zealand to spot the errors!).

This piece also features some pretty appalling spelling mistakes – frequent talk of "procecusions" rather than "prosecutions", that sort of thing – which rapidly become downright annoying to the reader. As Carl admits, the use of the Magnetic Pages diskmag producer to tie the articles together results in a rather outdated appearance, which is a particular shame given that a considerable portion of the content is concerned with where the Amiga is now and where it might go in the future.

If there is to be another issue of the magazine, Carl intends to write his own front-end. It would be a shame if another decent disk magazine disappeared though, so Carl, if you don't get around to writing your own program, how about considering marking the articles up in HTML so that readers could view them in a browser?





BY: Carl Read and others
WARE: Free
PD LIBRARY: From Andrew Jackson
NUMBER OF DISKS: Two
PRICE: Free – send 2 disks and an SAE

KAK

Selection of the month

Kak is a pre-release demo of what looks like being a really enjoyable arcade adventure. In the mould of classic walky-talky-fighty romps like the *Zelda* series on the old 8-bit Nintendo Entertainment System, this highly polished and beautifully presented game should provide hours of fun for adventurers.

You play the eponymous Kak, who was discovered as a small child wandering around a giant dung mountain near the village of Hat. Taken in and nurtured by a kindly dung warden named Sore, Kak had a happy upbringing.

Then, one day, whilst playing with his chums on the dung heap, Kak discovered he had secret powers – he was able to magically manipulate the dung and have it do his bidding (always a useful skill, one would imagine).

Unfortunately, Kak's mates were scared by his newfound talent, and soon the entire village shunned Kak. When Sore was killed by a dung avalanche a mere matter of days later, the village elder, Karp, was forced to take in Kak. But Karp was suspicious of the young man's powers and so leapt at the opportunity to ship Kak off to Paxton Castle to apply for the post of serf-in-waiting.

You must guide Kak to the castle, discovering along the way exactly who he is and what purpose his powers serve.







You control Kak using a joystick, although there are a couple of keyboard commands which you will occasionally need to use. For instance, hitting the space bar brings up an inventory of items which the hero is carrying, and zero and enter on the numeric keypad enable you to cycle between different objects. The fascinating gameplay draws you in, and it's impossible to fault *Kak* in terms of presentation either. The graphics throughout are colourful, well-drawn and appealing, the screen scrolls beautifully and the sound effects are crisp and atmospheric. Understandably, Alex is only prepared to invest his time and effort in finishing *Kak* if there will be sufficient demand for the full game. Once you've seen this demo, you're bound to agree that it would be a real shame if *Kak* is never completed – it has the potential to be a really great product.



What's to be dung here then? It should be turdally obvious what you're pooing. Ahem. Sorry.

Kak – only it isn't, it's actually a really good game so far.

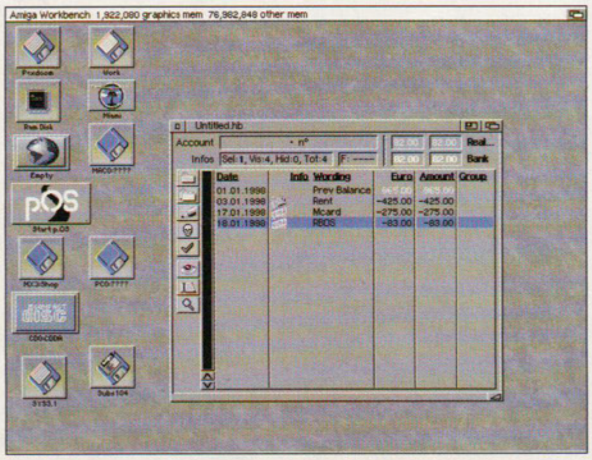
BY: Alex Smyth
WARE: Demo
PD LIBRARY: Classic Amiga Software
NUMBER OF DISKS: One
PRICE: £1 plus 75p P&P

Rubicon and *The Black Church*, this is a music disk and nothing else. Tracker module fans will doubtless glean much enjoyment from wallowing in their own mental mire as their Amiga cranks out one doleful ditty after another.

HomeBank v1.11

BY: Maxime Doyen
WARE: Share
PD LIBRARY: Classic Amiga Software
NUMBER OF DISKS: One
PRICE: £1 plus 75p P&P

There is certainly no shortage of Shareware accounts management software on the Amiga and, to be honest, an awful lot of it is very similar. Typically, accounts programs will be written in Amos, featuring a clunky and ever so slightly quirky interface, possibly with a garish colour scheme thrown in for good measure, and precious few genuinely useful functions beyond the bare basics.



***HomeBank* has many original features that lift it above the other accounts management programs available.**

HomeBank is better than most programs of this type, however. For a start, it's not written in Amos, boasting an attractive MUI interface instead. The program window includes a couple of rows of icons which are reasonably clear, everyday operations can be carried out intuitively and there are no pointless pinging sound effects to accompany mouse clicks. *HomeBank* relies on the Workbench calculator rather than needlessly introducing a nasty, non-standard one of its own.

The program also has some nice touches I've not really come across before. For instance, it includes support for the proposed and possibly forthcoming Euro currency, so by ticking a box on the appropriate options page you can have your financial details displayed in Euros rather than in your national currency.

The Car Cost summary is another welcome feature. In order to obtain a report you need to include special information in some account entries, specifically the mileage on your car odometer on refuelling and the amount of petrol or diesel you put into your car in litres. You can then find out exactly how much fuel your car burns for every 100Km travelled, and how much this has cost you. I didn't dare

Continued overleaf ➡

enter accurate figures for my car… some things are just too painful to learn.

Transactions can be classified in groups for easy statistical analysis, so you could quickly find out exactly how much you have spent on clothes in a year, or in a particular month of that year, simply by selecting the statistical summary option from the Tools menu.

Another thoughtful inclusion is the operations Archive, a small database in which details of commonly performed operations can be placed.

HomeBank is well designed, user-friendly and sufficiently powerful to fulfil all your home accounting needs.

If you have had enough of digging through piles of papers once a month, you would do well to get hold of a copy and shell out the 100 French Francs registration fee so that your accounts are not limited in length.

Find out how you managed to spend all your money. It'll probably involve copious amounts of Guinness...



Class HD Utilities 31

BY: Various
WARE: Various
PD LIBRARY: Classic Amiga Software
NUMBER OF DISKS: One
PRICE: £1 plus 75p P&P

The latest in this long line of utility compilation disks contains a typically eclectic mix of bits and bobs. *ArtecScan* is, unsurprisingly, a driver for scanners – the A60000C Plus and Viewstation AT3 models to be precise.

Apparently it outperforms the PC software which is actually bundled with the scanners, although not having an Artec scanner myself I was, of course, unable to test this claim. It's Shareware, so if you use it you are obliged to send the author the registration fee of US$30.

MaxMenu is a utility in the same vein as *Toolmanager*, but it takes up less space on screen. It's easily installed and configured and is worth investigating if your Workbench screen is too cluttered to accommodate a *Toolmanager* dock.

DataType Guide claims to be the most comprehensive guide to datatypes in existence, having now reached its tenth release. It comes with a program called *DVC* which compares versions of datatypes, libraries and devices installed on your system with ones that other applications require on installation.

With *DVC* it's possible to update old system files directly from the Internet, which is quite groovy. There's also *MidiBox*, which consists of a couple of text and image files explaining how to construct a MIDI interface for your Amiga; *GuruLog*, which unsurprisingly identifies and logs software failures; *LHA2LZX*, which equally predictably converts LHA archives into LZX ones; and finally there's *Head2*.

This is a totally useless Blitz Basic program that creates a window on your Workbench containing an image of a 3D head built up from dots. When you move your mouse pointer around the screen, the head turns to follow it. It's really cool… for about two minutes.

Class HD Utilities 31, as with so many of its predecessors, is less an essential purchase than an interesting selection of programs which you may or may not like or need. As it only costs a couple of quid, you might as well try it out.

GET YOUR DISKS FROM

ANDREW JACKSON
7 Nut Tree Close, East Huntspill, Nr Highbridge, Somerset, England, TA9 3PN.

CLASSIC AMIGA SOFTWARE
11 Deansgate, Radcliffe, Manchester, M26 2SH. ☎ 0161 723 1638.

ROBERTA SMITH DTP
190 Falloden Way, Hampstead Garden Suburb, London, NW11 6JE. ☎ 0181 455 1626.

AMIGA FRUITS



I'm not really a gambling man. I have but one real vice, in that I'm partial to the odd pint from time to time. Not for me are tobacco and/or various illegal substances, and most certainly not for me is standing next to a flashing box, pumping my hard-earned coins into a slot in the vain hope of actually getting some of them back again.

Like the world and his uncle, I might bet a few quid on the Grand National or stick a pound or two in the *Cluedo* machine while I'm waiting for my tardy mates to turn up at the local, but quite frankly I've got better things to do than stand watching a fruit machine all night, observing exactly how it is behaving and how much it is prepared to pay out.



Computerised fruit machine simulators are a particularly curious concept too. Presumably fruitie fans must experience some sort of buzz from the actual playing of the game rather than simply the hope of winning some money, because otherwise nobody would even have considered producing a computer game modelled on a fruit machine.

Still, as fruit machine simulators go, *Amiga Fruits* isn't bad. The graphics are quite nice, the sound effects are realistic (and capable of becoming exceedingly annoying very quickly) and the thing seems to play in a lifelike fashion. In other words, I didn't manage to win much and I went through my notional ten pounds rapidly. Apparently you can win up to £200 on *Amiga Fruits*, but I can't claim to have got into double figures, let alone triple figures.

As you'll find out when you run out of money, if not before, this is only a demo. If you decide you like *Amiga Fruits* and want to purchase the full version of the game, you'll have to send the author a cheque for five pounds. Annoyingly, when you are presented with the address to send your money to, there's no way of restarting the game short of rebooting your machine. Still, I suppose that's an effective way of trying to force people to part with their pennies…



Gambling, only without spending any money, no chance of winning any and no pub involved. Hmm.

BY: Gary Hunt
WARE: Share
PD LIBRARY: Various
NUMBER OF DISKS: One
PRICE: Varies

HARD DISKS
For the Amiga 1200

PRICES INCLUDE CARRIAGE*

Our packs come with EVERYTHING you need to install the 2.5" drive into your A1200, Cable, Screws, Instructions & 7 disks FULL of HOT software like Directory Opus 4.12 (worth £50), MUI 3, MCP, Galaga AGA, Virus Checker, Mods, ReOrg, ABackup and MUCH MORE. All software can be installed with our click 'n' go system. Drives are pre-installed with the system software & above disks - unlike others we provide the disks just in case!

Want us to fit your Hard Disk for you? CALL FOR MORE DETAILS.

FREE OPUS 4.12 worth £50

1.4GB	£169.99
2.1GB	£199.99
3.2GB	£299.99

MONITORS & SPEAKERS



ScanDoubler MkII is our new external Amiga to SVGA hardware box. It automatically increases any Amiga 15KHz signal up to 31.5KHz to be compatible with an SVGA monitor. Auto Pass-Thru for Amiga 31.5KHz generated signals. Full 24-bit Support - other products only offer 16-bit! Ideal solution to play games and run applications on an SVGA monitor.

ScanDoubler MkII	£79.99
14" Digital Monitor & ScanDoubler MkII	£219.99
15" Digital Monitor & ScanDoubler MkII	£259.99
17" Digital Monitor & ScanDoubler MkII	£399.99
50w Stereo Shielded Speakers	£24.99
120w Stereo Shielded Speakers	£34.99

PRICES INCLUDE CARRIAGE*

REPAIRS
by Qualified Technicians

- All Amiga Computers Covered
- Prices from as little as £29.99
- Many repairs by Wizard require NO Parts
- Prices include *Insured Courier Collection & Delivery*, Labour, Full Diagnostics, Service, Soak Test & VAT.
- Fast Turnaround
- All Technicians are Fully Trained & Qualified
- Upgrades bought at same time fitted FREE!
- Insurance Claim Work Undertaken
- 90 days Warranty on all Repairs

PRICES INCLUDE COLLECTION & DELIVERY

All for just £29.99 + parts

PARTS

We have a large range of parts for ALL Amiga's - Drives, Keyboards, Mouse Ports, Chips and more. Please call for pricing details.

OFFICIAL AMIGA PREMIER DISTRIBUTOR



PRICES INCLUDE CARRIAGE*

NEW machines from Amiga International Inc. All machines are full UK Specification and come bundled with the Complete Amiga Magic Pack software bundle PLUS! ... Directory Opus 4.12! All Hard Disk models also include Scala MultiMedia 300 pre-loaded, the Official Amiga Hard Disk manual & HD Install disk.

AMIGA INTERNATIONAL, INC.

AMIGA 1200 MAGIC PACKS

68020/14.3MHz
2MB RAM
No HD
£199.99

PRICES INCLUDE CARRIAGE*

68020/14.3MHz 10MB RAM 170MB HD Scala MM300 **£299.99**	**68030/40MHz** 18MB RAM 170MB HD Scala MM300 **£349.99**
68040/40MHz 34MB RAM 1.4GB HD Scala MM300 250w PSU **£579.99**	**68060/66MHz** 34MB RAM 2.1GB HD Scala MM300 250w PSU **£749.99**

PRICES INCLUDE CARRIAGE*

PowerBox
250w Amiga Power Supply

AMIGA FORMAT GOLD

Power-Up your Amiga with this 250w Enhanced Amiga PSU for little more than the price of a normal 25-30w Amiga PSU! Designed for A500/600 & 1200 (CD32 also available). Encased in Steel Subsystem, All Cables Supplied, Whisper Quiet Fan, Illuminated On/Off switch, Monitor outlet on back of PSU, Only Quality/New PSU's used 3.5" & 5.25" power cables available to power CD-ROMs, Hard Disks etc.

£49.99

PRICES INCLUDE CARRIAGE*

POWERSTRIP - Power 4 normal plugged devices (monitor, printer, speakers etc) direct from the back of PowerBox. Turn ALL products on/off with just ONE switch. **£19.99**

MAGNUM
A1200 Expansion Cards

FREE OPUS 4.12 worth £50

FROM £39.99

PRICES INCLUDE CARRIAGE*

	0MB	4MB	8MB	16MB	32MB
RAM8	£39.99	£54.99	£64.99	-	-
RAM8/40MHz FPU	£49.99	£64.99	£74.99	-	-
68030/40	£79.99	£94.99	£104.99	£119.99	£139.99
68030/40 & FPU	£89.99	£104.99	£114.99	£129.99	£149.99
68040/25 & FPU	£149.99	£164.99	£174.99	£189.99	£209.99
68040/40 & FPU	£189.99	£204.99	£214.99	£229.99	£249.99
68060/50 & FPU	£289.99	£304.99	£314.99	£329.99	£349.99
68060/66 & FPU	£329.99	£344.99	£354.99	£369.99	£389.99



PRICES INCLUDE CARRIAGE*

FREE OPUS 4.12 worth £50

RAM8

Provides a Speed Increase of 2.3 times - 2.88mips ♦ Available with 0, 4 or 8MB of 32-bit RAM installed ♦ Uses a Standard 72-pin Simm ♦ Optional PLCC Type FPU (floating point unit) ♦ Battery Backed Clock/Calender ♦ Trapdoor Fitting - doesn't void warranty ♦ 0-4MB - PCMCIA compatible (for use with squirrel etc.) ♦ Zero Waite State Design.



PRICES INCLUDE CARRIAGE*

FREE OPUS 4.12 worth £50

MAGNUM ACCELERATORS

Provide a Speed Increase of up to 44 times ♦ 68030, 68040 or 68060 Processor running at up to 66MHz ♦ MMU in ALL processors ♦ '040 fits Standard A1200 - no problem & is supplied with a Heatsink & Fan ♦ Up to 32MB of RAM can be added ♦ Kickstart ReMapping ♦ Optional SCSI-II interface ♦ Can accommodate a 72-pin SIMM ♦ 68040/60 have built-in FPU ♦ Battery Backed Clock/Calender ♦ PCMCIA compatible so that you can still use products such as Squirrel ♦ Zero Waite State Design.

SCSI-II Interface for the Magnum MKII Cards - £69.99

560DPI 3 BUTTON MICE & MATS
for all Amigas & Atari STs

Award winning 560dpi Resolution ♦ 90% rating in CU Amiga ♦ Micro Switched Buttons ♦ Amiga/Atari ST Switchable ♦ All 3 buttons can be used with many programs such as Directory Opus 5

BEIGE or BLACK £12.99

FREE THIRD BUTTON DRIVER DISK



PRICES INCLUDE CARRIAGE*

MAT £2.99 or £1 with a mouse

SATURN
External 1Mb Floppy Drive for all Amigas

PRICES INCLUDE CARRIAGE*



Compatible with ALL Amigas ♦ High Quality SONY Drive ♦ Robust Metal Case ♦ Anti-Click as Standard ♦ Enable/Disable Switch ♦ Low Power Consumption ♦ Thru Port for Extra Drives ♦ With PowerCopy Hardware/Software Backup System & 3 Games

FREE OPUS 4.12

£49.99

TURBOPRINT 6
Printer Enhancement Software

PRICES INCLUDE CARRIAGE*



If you have a printer - you MUST get TurboPrint. It radically enhances the printouts you normally get by replacing the Amiga Printer System with the Faster and Visibly Better TurboPrint System. Options include Poster Printing, Colour Correction, Dithering, Colour Balancing, On-Screen Preview and Much More... Most printers are supported - call to check. Includes "Graphic Publisher" to load multiple pictures, individual colour correction, rotate, twist, Now Handles TEXT! Auto PhotoOptimiser, TurboSpool - Print Spooler, PowerPC Enhanced, New drivers for HP, Canon, Epson Stylus and Citizen models. Amiga Format Gold. CU Amiga Awards.

CALL ABOUT UPGRADES

£39.99

OPUS MAGELLAN
Amiga Operating System Upgrade

AMIGA FORMAT GOLD



PRICES INCLUDE CARRIAGE*

£49.99

THE ULTIMATE WORKBENCH REPLACEMENT & FILE MANAGEMENT SYSTEM

Combines the Easy to use Workbench Environment and the POWER of Opus in one ♦ Replace and Enhance Workbench ♦ OpusFTP to open an FTP site as a File Lister ♦ Internal Multi-Tasking so you can perform MULTIPLE file operations SIMULTANEOUSLY (Workbench can't!) ♦ File-Type Specific Pulldown Menus ♦ Hotkeys ♦ Scripting ♦ Extensive Drag 'n' Drop throughout ♦ Advanced ARexx support ♦ Picture, Sound & Font Viewer ♦ MUI & NewIcons Support ♦ Sort Listers & display Versions and FileTypes ♦ Full CyberGFX Support

Workbench 2+ & Hard Disk Required

PRINTERS



PRICES INCLUDE CARRIAGE*

The Epson range of InkJet Printers is considered by most as the best available. With our advanced knowledge of TurboPrint we are pleased to offer the complete range of Stylus Printers including the NEW Stylus 6-colour Photo Printer. ALL Printers include a Bi-Directional Parallel Printer Cable. We also offer TurboPrint at £35 if bought with a printer.

Stylus 300 - 3ppm, 720dpi, 4 colour	£139.99	& TurboPrint6	£174.99
Stylus 600 - 6ppm, 1440dpi, 4 colour	£229.99	& TurboPrint6	£264.99
Stylus 800 - 8ppm, 1440dpi, 4 colour	£299.99	& TurboPrint6	£334.99
Stylus Photo - 6 colour - Photo Quality	£299.99	& TurboPrint6	£334.99

ALL WITH A *FREE* BI-DIRECTIONAL PRINTER CABLE

PC TASK 4
Advanced 486 PC Software Emulator

VERSION 4.4 NOW SHIPPING

CALL ABOUT UPGRADES

PRICES INCLUDE CARRIAGE*

Featuring Advanced 486 software Emulation, Dynamic Compilation for faster emulation, up to 16MB accessible under MS-DOS, MDA, CGA, EGA, VGA & SVGA supported, up to 256 colours on an AGA machine, CyberGraphic support, Multiple hard disk files or partitions Supported, CD-ROM and High Density drives supported, Run MS-DOS applications in a window on Workbench! Run Windows 3.1 in Enhanced Mode! Many times quicker than version 3.1. Req. Kickstart 2 or above & a 68020 Processor or Better.

£69.99

IMAGE FX 3
The Complete Image Processing Solution for all Amigas

CALL ABOUT UPGRADES



Nova Designs have done it again! FX 3 is breaking yet more barriers in Amiga Image Processing and Manipulation. FX3 includes ♦ New User Interface allowing Multiple Image Buffers & Views ♦ Instant Asynchronous Redraw ♦ REAL Image Layers ♦ Read/Write PhotoShop files ♦ Fractal Cloud Generation ♦ Blow Images apart with the Scatter module ♦ Liquid Effects with the Splash module ♦ PageCurler, FXForge Algorithm Effects that you can add to yourself! Improved Epson Scanner Module and much more......!! Requires 2MB & Hard Disk.

NOW SHIPPING

PRICES INCLUDE CARRIAGE*

£179.99

ALADDIN 4D
Ultimate Rendering Power



PRICES INCLUDE CARRIAGE*

The makers of ImageFX present the Fastest Amiga Rendering Package ever! Feature packed with advanced Model and World tools. Modular Design, Surface Layering, CyberGraphX Support, Ultra-Fast Rendering, Images up to 32,000 x 32,000 Pixels can be generated....... Requires 5MB, Hard Disk & FPU

£99.99

WIZARD DEVELOPMENTS

PRICES INCLUDE CARRIAGE*

ORDER HOTLINE
0181-303-1800

SWITCH · VISA · MasterCard

FAX 0181-303-1861

See Our NEW Internet WEB Page

www.wizard-d.demon.co.uk

WE ARE OPEN 9AM AND 5.30PM, MONDAY TO SATURDAY, TO PAY BY CREDIT CARD. TO PAY BY CHEQUE OR POSTAL ORDER PLEASE SEND YOUR ORDER TO - WIZARD DEVELOPMENTS, PO BOX 123, SIDCUP, KENT, DA15 9ZY

Cheques should be payable to WIZARD DEVELOPMENTS. * Prices include VAT & carriage to the UK mainland. Non-UK mainland carriage for most orders (except Printers, Monitors & Computers) is £10 per order. VAT Free sales available for Non-EC. All products are subject to availability. E&OE. Advertised prices & specification may change without notice. All sales are subject to our trading conditions - copy available on request.

ALSO AVAILABLE

EasyLedgers 2 - The ONLY full accounts package, Amiga Format Gold - Call about Trail Offer - Hard Disk/2MB RAM Req. **£119.99**

GP Fax - Send Faxes to and from your Amiga. Even Fax directly from your application. Amiga Format Gold - Fax Compatible Modem Required **£44.99**

40MHz FPU KIT
PLCC Type FPU & Crystal **£24.99**

A500 512K Expansion	£14.99
A500plus 1MB Expansion	£19.99
A600 1MB Expansion	£19.99

PRICES INCLUDE CARRIAGE*

ALL with a FREE Opus 4 worth over £50

50 2S/DD Disks & Labels	£14.99
100 2S/DD Disks & Labels	£24.99

4MB 72-pin SIMM	£15
8MB 72-pin SIMM	£25
16MB 72-pin SIMM	£40
32MB 72-pin SIMM	£60

PRICES INCLUDE CARRIAGE*

ALL SIMMs are NEW and have a 1year Warranty

BSB
Books & Videos

PRICES INCLUDE CARRIAGE*

Insider Guide - A1200	£14.95
Insider Guide - A1200 Next Steps	£14.95
Insider Guide - Assembler	£14.95
Insider Guide - Disks & Drives	£14.95
Total! Amiga - Workbench 3	£19.99
Total! Amiga - AmigaDOS	£21.99
Total! Amiga - ARexx	£21.99
Total! Amiga - Assembler	£24.99
Mastering Amiga Scripts	£19.95
Mastering Amiga Beginners	£19.95
Mastering Amiga Printers	£19.95
Mastering AmigaDOS 3 - Reference	£21.95
Mastering Programming Secrets	£21.95
AmigaDOS Pack Total! Amiga - AmigaDOS & Mastering AmigaDOS 3 - Reference Usually £43.94 - SAVE NEARLY £9	£34.99
A1200 Beginner Pack 2 books (Insider A1200 & Next Steps), a 60 Minute Video, 4 disks of PD to go with the books/videos	£39.95
A1200 Disk Drive Pack - NEW Insider Disks & Drives, a 90 minute Video, 1 disk & Reference Card	£24.95

Special Offer!

up to 30% off

AMIGA FORMAT

Enjoy the Benefits of a Subscription

Subscribe now and make a massive saving on the cost of the world's best Amiga magazine, with up to 30% off the normal price!

- **EVERY issue delivered to your home.**
- **FREE Delivery in the UK.**
- **FULL PRICE PROTECTION for the duration of your subscription.**
- **EXCLUSIVE subscriber newsletter and disk every month.**



How to Order

BY DIRECT DEBIT: Complete and return the form on the next page.
Postage is free for UK residents. Please note that Direct Debit instructions cannot be accepted by email or fax.
BY CHEQUE OR CREDIT CARD: Complete and return the form on the next page.
(Remember postage is free in the UK.)
Call the SUBSCRIBER HOTLINE on 01458 271102*
FAX: The completed form on the next page to 01225 822523
EMAIL: subs@futurenet.co.uk*
WORLD WIDE WEB: www.futurenet.co.uk/amigaformat.html*

ORDER NOW ON: 01458 271102

***IMPORTANT – PLEASE QUOTE ORDER NO. AFP113 WHEN TELEPHONING OR EMAILING YOUR ORDER**

Back Issues

Missed *AF*? Don't miss out completely, order it now while stocks last...


DISK CODE: AMF112
CD CODE AFC028

SCALOS
A completely new operating system which allows you to totally replace your Workbench.

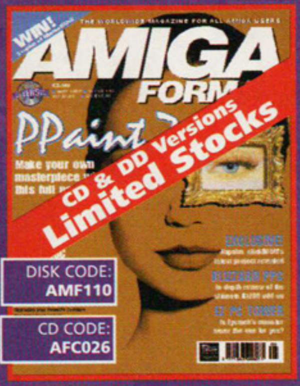
F1GP EDITOR
Customise everything in the classic racing game, even down to the colour of your driver's helmet.

A World of Amiga special, with all the news from Gateway about the future of the Amiga and all the opinions that count.

AFCD28
Once again there's something for everyone, with a fully useable version of *DrawStudio 2 Lite*, a brand new version of *ShapeShifter*, a Simpsons WAD for *Doom* and much, much more...


DISK CODE: AMF111
CD CODE: AFC027

Coverdisks:
A comprehensive database, *X Base*, and the complete version of the seminal racing game, *F1GP*.



DISK CODE: AMF110
CD CODE: AFC026

Coverdisks:
The full version of the great paint package *Personal Paint 7.0*, racing with *Boscar* and flying with *CANE*.



DISK CODE: AMF109
CD CODE: AFC025

Coverdisks:
Save the world in the full version of *UFO* (CD only) and enhance your Workbench with *MultiCX 2.80*.



DISK CODE: AMF108
CD CODE: AFC024

Coverdisks:
Easy interfaces and menus with *Selector* and marsupial mayhem in *Kangy*, a top arcade platformer.


DISK CODE: AMF107
CD CODE: AFC023

Coverdisks:
Blacks Editor, three other invaluable utilities and *Tetris* puzzles with guns in *Age of Rock*.

Treat yourself to a back issue of *Amiga Format*. It costs just £5 for a back issue complete with coverdisks or £5.99 for the CD version.

(European orders – add £1 per issue for postage. Rest of the World – add £2 per issue for postage)

Call our order hotline on
01458 271102
email: subs@futurenet.co.uk

*IMPORTANT – PLEASE QUOTE ORDER NO. AFP113 WHEN TELEPHONING YOUR ORDER

Subscription Order Form

Personal Details

Title.................... Initials .... Surname.........................

Address ....

....

Country .... Postcode ....

Daytime tel no. ....

European subscribers quote your EC VAT reg no ....

Subscriber Number (If applicable) ....

Your subscription will start with the next available issue

Please start my subscription at the new discount rate ticked below.

	DD		CD	
12 Issues UK Direct Debit Price	❑	£42	❑	£56
12 Issues UK (Cheque/Credit Card)	❑	£42	❑	£56
12 Issues Europe	❑	£54	❑	£68
12 Issues Rest of World	❑	£68	❑	£82

Direct Debit is only available to UK-based readers with a UK bank account.
Overseas prices quoted are for airmail only and include postage charged at cost.

1.❑ **Direct Debit** The full amount of your subscription will be deducted in advance and in one lump sum. Please complete the mandate at the bottom of this form.

Please note: If you are paying for your subscription by Direct Debit, you must enclose a separate payment by credit card or cheque for any mail order purchases.

2.❑ **Cheque** (payable to Future Publishing Ltd. Sterling cheques on a UK bank account only)

3.❑ **Visa** ❑ **Mastercard** Expires..

Card no ....

Signature .... Date ....

Instruction to your Bank or Building Society to pay Direct Debits.

Future Publishing Ltd. Cary Court, Somerton, Somerset. TA11 6BR

DIRECT Debit

Originator's Identification Number
9 3 0 7 6 3
Please send this form to address shown

1. Name and full postal address of your Bank or Building Society branch

To: The Manager ______________ Bank/Building Society

Address ______________________

______________ Postcode ______________

2. Name(s) of account holder(s)

3. Branch sort code (from the top right hand corner of your cheque)

4. Bank or Building Society account number

5. Instruction to your Bank or Building Society

Please pay Future Publishing Direct Debits from the account detailed on this Instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with Future Publishing and if so, details will be passed electronically to my bank or building society.

Signature(s)______________ Date______________

Ref No (Office use only)______________

Banks and Building Societies may not accept Direct Debit Instructions for some types of account.

The Direct Debit Guarantee (copy/retain for reference)

- This Guarantee is offered by all Banks and Building Societies that take part in the Direct Debit Scheme. The efficiency and security of the Scheme is monitored and protected by your own Bank or Building Society.
- We will debit your account with the full amount as soon as your instruction has been processed. Thereafter we will debit your account at the time of renewal.
- If the amounts to be paid or the payment dates change, Future Publishing will notify you of this in advance by at least 14 days as agreed.
- If an error is made by Future Publishing or your Bank/Building Society, you are guaranteed a full and immediate refund from your branch of the amount paid.
- You can cancel a Direct Debit at any time, by writing to your Bank or Building Society. Please also send a copy of your letter to us.

FULL AMOUNT WILL BE DEDUCTED IN ADVANCE AND IN ONE LUMP SUM.

❑ Please tick this box if you would prefer not to receive information on other offers

UK READERS SHOULD RETURN THIS COUPON BY FREEPOST TO:
AMIGA FORMAT SUBSCRIPTIONS, FUTURE PUBLISHING LTD, FREEPOST BS4900, SOMERTON, SOMERSET TA11 6BR

OVERSEAS READERS SHOULD RETURN THIS COUPON (POSTAGE PAYABLE) TO:
AMIGA FORMAT SUBSCRIPTIONS, FUTURE PUBLISHING LTD, CARY COURT, SOMERTON, SOMERSET, UK, TA11 6TB

AFP113

SERIOUSLY AMIGA

In-depth reviews of hardware and software that you can trust.



You may remember a ditty from school that went, "Here I sit, bored as hell, waiting for the..." yes, well, I'm sure you remember how it finished, but it's how I feel sitting here waiting for some news from Amiga Inc. We were all given a new lease of hope at the WoA show because they were telling us something, but they've clammed up good and tight since then, the Website that was heavily touted has hardly changed and Bill McEwen is busy telling newspapers and the like all sorts of weird stories that anxious readers email me about. Still, there's enough good stuff this month to take your mind off these traumas, for the time being at least...

Ben Vost

AMIGA FORMAT'S REVIEW POLICY

...is very simple. ***Amiga Format*** is staffed by some of the most experienced Amiga users in the world and what we say goes. OK?

WHAT OUR REVIEW SCORES MEAN

90+%	The crème de la crème. Only the very best, most versatile and effective products are awarded an ***AF Gold*** – the most highly prized rating there is.
80-89%	These products are very good, but there are minor flaws or areas that could be improved upon.
70-79%	Not a bad product but quite possibly one that needs a serious update.
60-69%	Average products with somewhat limited features and appeal. Products in this category tend to be flawed.
50-59%	Below average products which are unlikely to impress your mates or your wallet. Avoid.
40-49%	Overwhelmingly poor quality products with major flaws.
Under 40%	The absolute pits.

Power Flyer

Want to dramatically improve the speed of your A1200 hard drives? **Nick Veitch** does, and so should you!

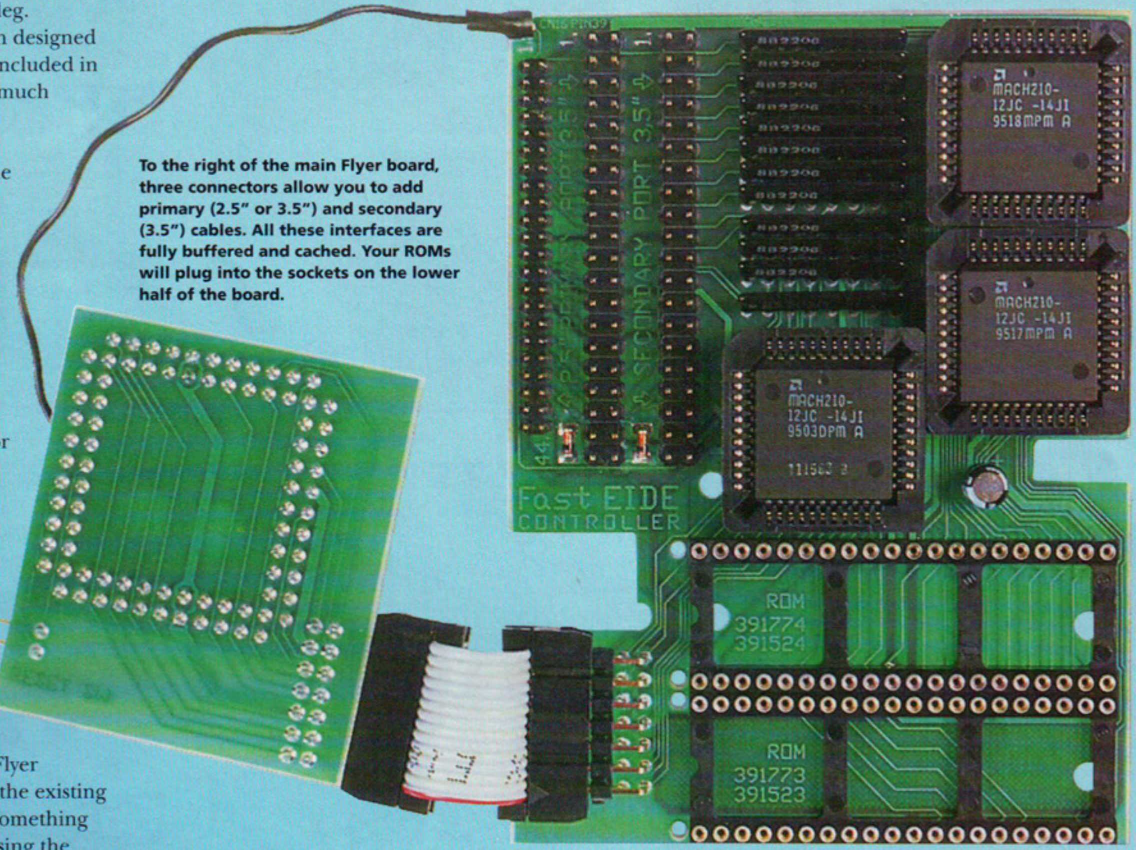
What would you give to have all of your drives suddenly go two, three or even eight times as fast as they currently do? What would you give to have four devices attached to your IDE bus, working in harmony? Well, thanks to the Power Flyer, it may not have to be an arm and a leg.

The Power Flyer has been designed to update the IDE interface included in the A1200. There is not that much wrong with the Amiga's IDE interface, except that it was designed a long time ago. The original IDE specification wasn't breathtaking (it was drawn up the year after the Amiga was launched) but it dealt adequately with the technology of the day. As time has progressed though, most of its features have become limitations.

These include support for only two devices, restricted speed and a theoretical limit to drive capacity of 528Mb (which thankfully the Amiga implementation wasn't hampered with, though the filesystem's restriction of 4.2Gb has been a problem for some).

INSTALLATION

In order to work, the Power Flyer needs to successfully replace the existing IDE interface in the A1200, something which it can only do by accessing the Gayle and the ROMs on the motherboard. It should come as no surprise that the Power Flyer comes in the form of two boards, connected with cable, which fit over the relevant areas of the motherboard (either in a tower or normal desktop A1200). Catweasel 2 users should note that there is a cutout on the board to allow access to the clock port, and although it is a very snug fit, you can still connect the small IDC cable to it.



To the right of the main Flyer board, three connectors allow you to add primary (2.5" or 3.5") and secondary (3.5") cables. All these interfaces are fully buffered and cached. Your ROMs will plug into the sockets on the lower half of the board.

> *"In order to work, the Power Flyer needs to successfully replace the existing IDE interface in the A1200..."*

The Gayle sub-board uses the time-honoured inverted socket method of attachment, though it has to be said that this seems to work rather well as the socket is fully deep enough to connect solidly, completely enclosing the Gayle. Having secured it tightly to my motherboard, I don't think I'd be able to remove it in a hurry.

The ROM board is a slightly tighter fit. In order to fit it you'll first have to remove your ROMs, something which is best done with a chip extractor and a lot of care. The ROMs plug into two sockets on the Power Flyer, which then plugs back into the space left by the ROMs. The board is never going to be properly secure without some support, so Power supply two plastic ties to strap it down well. This certainly seems to do the job. A small fly lead then attaches to the old IDE header and you're on your way.

The software consists of a driver, which is called from the first line of the startup-sequence, an installer and a prefs program. The driver tricks the Amiga by letting it think it is using the old IDE interface while it boots up, then switches on the Fast ATA mode. From now on, everything is quicker.

HOW FAST?

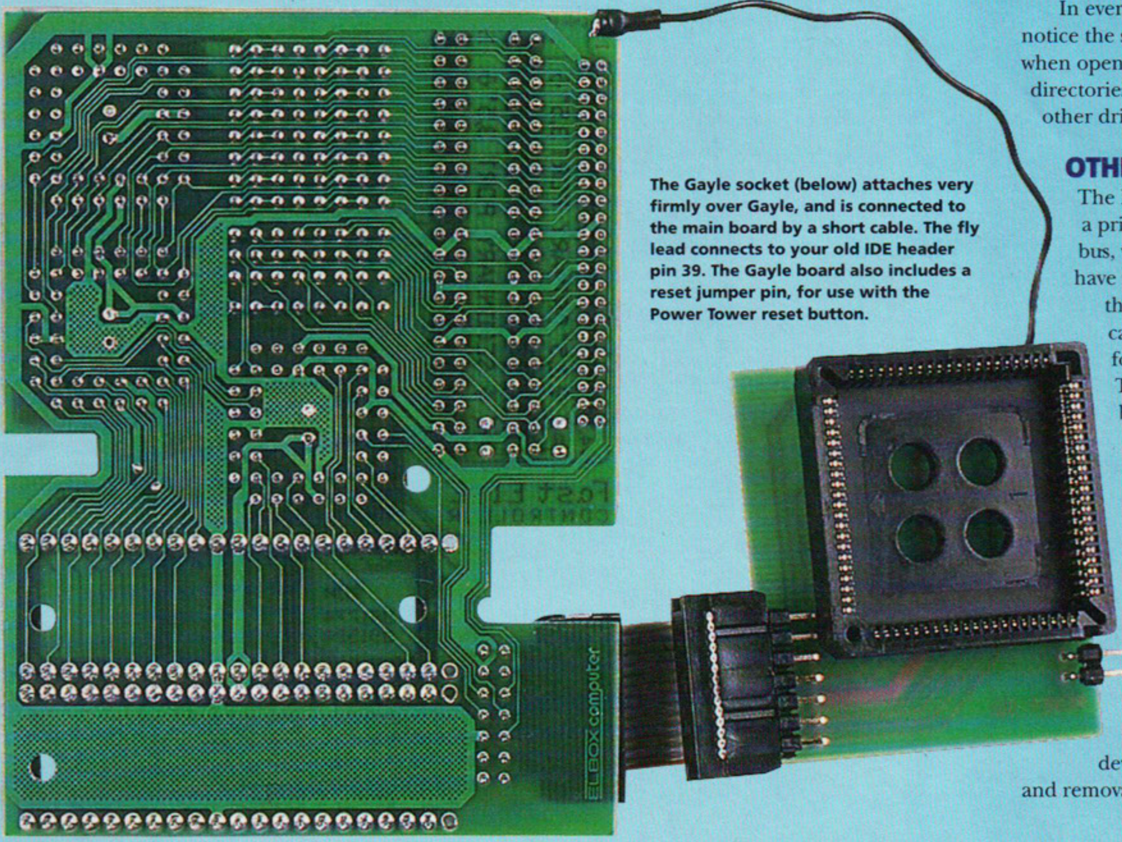
There are three types of ATA drives: normal ATA, Fast ATA and Fast ATA 2 (see glossary boxout). Although the theoretical limit is 16.6Mb/s (which in CD-ROM drive terms would be the equivalent of a 113x drive!) for a Fast-ATA 2 device, the Power Flyer does require CPU time, and quite a bit of it, to get good speeds. Even with an '060, in real use, where the processor is also

WILL MY DRIVES BE FASTER?

Of course, to take advantage of Fast ATA 2 speeds, you will need a FAST ATA 2-compatible drive. A lot of drives which have been commonly supplied by Amiga dealers to the market in the last couple of years are fully PIO4 mechanisms. You should be able to find out for sure by reading the original drive documentation or by contacting the manufacturer. Many of them have websites which will give you the information you require. Any drives which claim PIO3 or PIO4, or call themselves Fast ATA or Fast ATA 2, will be faster with the Power Flyer.

Examples of drives which are faster include virtually all the Maxtor 80000 series (for example, the 85210); all of the DM2880 family (model numbers 90000+), the Quantum Bigfoot, Fireball Trailblazer, Lightning, Maverick 3.5" EIDE drives; Seagate Medalist drives (and some earlier models); Western Digital Caviar drives and many Fujitsu MPA drives.

Additionally, Quantum Europa and Daytona 2.5" EIDE drives will support Fast ATA (11Mb/s).



The Gayle socket (below) attaches very firmly over Gayle, and is connected to the main board by a short cable. The fly lead connects to your old IDE header pin 39. The Gayle board also includes a reset jumper pin, for use with the Power Tower reset button.

required for other tasks, you are not likely to see speeds this high.

The Fast ATA specification uses the fact that in modern computers the local bus and processor are much faster than they used to be. This means that some CPU time is occupied in dealing with the drive and, to an extent, the speed of your processor will have an effect on how fast your drives perform, but even an unexpanded A1200 will benefit from a quite major increase in drive speed.

> ***To get the best out of the processor you are using, the driver software automatically adjusts itself...***

To get the best out of the processor you are using, the driver software automatically adjusts itself so you can squeeze every last bit of bandwidth possible.

For comparison, I tested the Maxtor 85120 drive from the office A4000/PPC, in a Flyered-up A1200 tower. In the A4000, according to the venerable *SCSISpeed*, the SCSI read speed on the Maxtor reached a peak of 1.3Mb/s (and very slightly slower speeds on a standard A1200).

Using the Power Flyer on the A1200 this doubled. With an '030, the read speed went up to over 6.5Mb/s, and it went up to nearly 8Mb/s on an '040-equipped machine.

Of course, these speeds were achieved in tests, and you probably know by now what we think of benchmarks. In real use, the data transfer speed plays a major factor in the overall speed of the drive, but it's not the only one. Different drives, and indeed different accelerator cards (Power Computing say that the best results they achieved were using Apollo '060 cards), will behave differently.

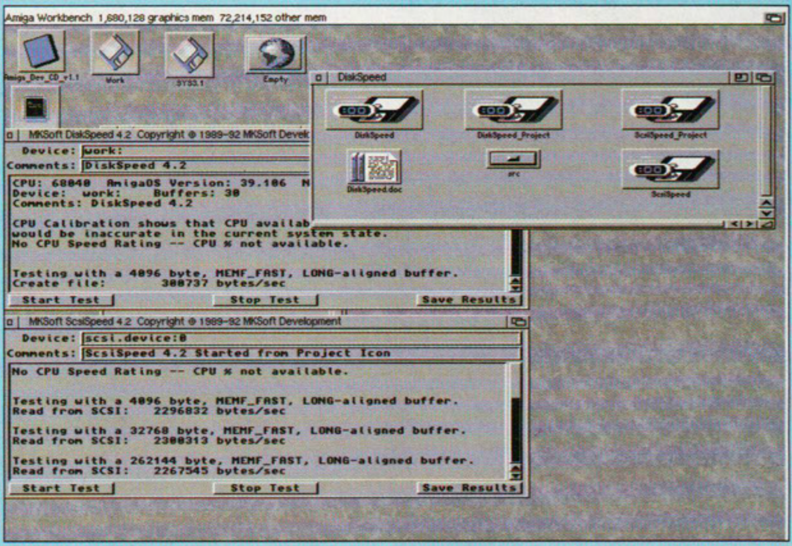
In everyday use, you will certainly notice the speed increase, especially when opening windows, reading directories, loading large images and other drive intensive work.

OTHER FIXES

The Power Flyer also incorporates a primary and secondary ATA bus, which means that you can have four devices connected to the bus, all going as fast as they can, so there's no more need for *IDE Fix* or IDE splitters. The Flyer includes a fully buffered and properly cached interface, in compliance with the ATA specifications. The primary bus and secondary bus can even be accessed at different speeds if necessary, so just because one of your drives is a slowcoach doesn't mean they all have to be.

This could be particularly important for non-disk devices such as CD-ROM drives, and removable drives like the Zip.

Continued overleaf ➡



***DiskSpeed* and *SCSISpeed* reporting that my very fast hard drive is actually very slow on an A4000.**

GLOSSARY

IDE – (Integrated Drive Electronics). This is a standard of peripherals, initially hard drives, which was invented in 1986. Essentially, the manufacturers moved much of the control electronics to the drives themselves, making the interfaces simpler and cheaper.

EIDE – (Enhanced Integrated Drive Electronics). This standard developed from the above in 1994, designed to reflect the changes in drive technology. Unfortunately, it is not so much of a standard as some manufacturers support some parts of it and not others. See Fast ATA for more information.

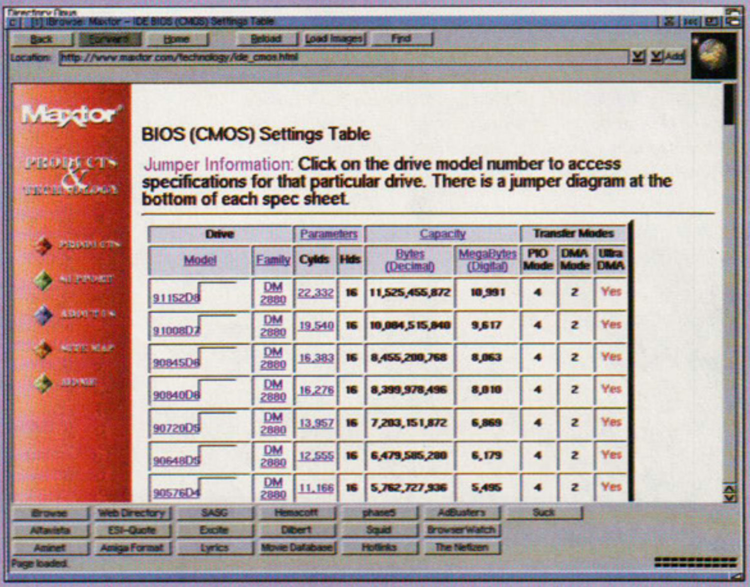
ATA – (AT Attachment). Just to confuse things, ATA is, in fact, the same as the original IDE specification. The term has been introduced to get rid of some of the confusion surrounding EIDE drives. These drives are limited to maximum speeds of around 2Mb/s on the Amiga.

Fast ATA – (Fast AT attachment). This is the first level of speed enhanced drives. Using new methods of addressing the drives, (PIO3), it allows transfer speeds of a maximum of just over 11Mb/second. Paradoxically, the FAST-ATA includes support for larger capacity drives, a Dual ATA bus (meaning four drives can be attached) and support for non-disk peripherals like CD-ROMs. These extra features are not necessarily to be assumed from EIDE.

Fast ATA 2 – (Fast AT Attachment 2). To take account of further advances, this standard currently supports a further way of addressing the drive (PIO4), which allows for data transfers of up to 16.6Mb second

FURTHER INFO

For the Web oriented, the following sites may yield some useful information.
http://www.quantum.com/src/ – This site contains a lot of background data on ATA, EIDE and basic storage technology. There is also a FAQ and a list of Quantum-made drives which support the various standards.
http://www.seagate.com – This site doesn't have so much background information, but it does include the specs on Conner and Seagate devices so you can check which are Fast ATA2 compatible.
http://www.wdc.com/products/ – This site has some EIDE related info, but again, it has a full list and specification of current Western Digital mechanisms.
http://www.maxtor.com/technology/IDE_cmos.html – Maxtor's drive information area.



Drive		Parameters		Capacity		Transfer Modes		
Model	Family	Cylds	Hds	Bytes (Decimal)	MegaBytes (Digital)	PIO Mode	DMA Mode	Ultra DMA
91152D8	DM 2880	22,332	16	11,525,455,872	10,991	4	2	Yes
91008D7	DM 2880	19,540	16	10,084,515,840	9,617	4	2	Yes
90845D6	DM 2880	16,383	16	8,455,200,768	8,063	4	2	Yes
90840D6	DM 2880	16,276	16	8,399,978,496	8,010	4	2	Yes
90720D5	DM 2880	13,957	16	7,203,151,872	6,869	4	2	Yes
90648D5	DM 2880	12,555	16	6,479,585,280	6,179	4	2	Yes
90576D4	DM 2880	11,166	16	5,762,727,936	5,495	4	2	Yes

Check your jumper settings and drive type online!

IDE-based CD-ROM drives are usually ATAPI devices (if they were made in the last few years, anyway), and hence fully compatible with ATA and the Power Flyer. The faster CD-ROMs also support data transfer rates comparable with PIO3 or PIO4, but, obviously, the CD-ROM drive's speed is going to be controlled by the mechanism it is using, not the interface it supports. It is only useful in that they shouldn't slow down other faster devices connected to them.

> *"... no matter what A1200 you might have, this is probably the most significant hardware release of the year."*

The other issue surrounding the Amiga's old IDE interface is its capacity limit. Although not as restrictive as the limitations imposed on the PC (which could originally only handle 528Mb drives, then 2.1Gb ones and now 8.4Gb, if you're interested), the interface in conjunction with the fastfilesystem imposed a 4.2Gb limit on drive size because of the way data was addressed.

A patched filesystem (which is available for download on the Amiga Inc. Website (http://www.amiga.com) is available, but it certainly doesn't cure the problem. The Power Flyer, because it effectively replaces the old IDE interface, is able to correct this problem entirely, so larger drives should no longer be a worry.

CONCLUSION

The concept of this board is great. Not only can you add four devices at once without being locked into any proprietary software, but everything is much faster too. The Power Flyer does make a great difference to even a lowly, unexpanded A1200, but you'll be surprised by just how much faster an accelerated machine can make your drives go.

The board seems well constructed and is very reliable in use. I'm not usually a great fan of connecting sockets over the top of chips and installing extra boards. However, there isn't any other way of achieving this modification of the old A1200 so I suppose it is excusable.

Those of a nervous disposition may not be too enthusiastic about ripping their ROMs out, but as long as you're careful there is no real danger. If you can manage to install an internal hard drive then should be able to manage this as well.

Probably the best thing is that the hard drive you already have is likely to work much better, so it isn't as if you have to go out and spend any more money on a new drive to take advantage of the extra speed.

It therefore seems rather unlikely that for such a fundamentally life-changing bit of kit, your limbs will be left intact – the asking price is an extremely reasonable £69.95.

Given the price and the immediacy of the benefit, no matter what A1200 you own, this is probably the most significant hardware release of the year.

SUPPLIED BY: Power Computing
PRICE: £69.95
REQUIREMENTS: A1200, hard drive
TESTED ON: A1200 tower, Maxtor 85120A8, various accelerators, version 1.5 of the ATA software.

SPEED: ●●●●●
Simply the fastest your drives are going to get in an A1200.

MANUAL: ●●●○○
The manual is being updated but it includes what you need to know.

ACCESSIBILITY: ●●●●○
You may be nervous about extracting ROMs but it's a doddle really.

FEATURES: ●●●●●
Not missing anything.

VALUE: ●●●●●
Exceptional value.

OVERALL VERDICT:
Your drives will thank you for it.

98%

Competition! WIN!

One of **Eyetech**'s brand new EZCD writers!

That's right. You can win one of Eyetech's new internal EZCD writers which are 2x write, 8x read ATAPI CD-R drives, complete with *MakeCD TAO* software and cables, worth £249.95.

Just submit your completed entry form below when purchasing any goods from Eyetech worth £20 or more.

Even if you don't win, order the CDPlus EZWriter including this voucher and get a box of 10 blank CDs free (worth £10)!

Best of all, if you buy one within the time span of the competition and you're lucky enough to win, Eyetech will refund the money you paid for the drive!

COMPETITION RULES

1. Employees of Future Publishing and the Eyetech Group are ineligible for entry to this competition.
2. No correspondence will be entered into.
3. Winners will be selected at random from all correct entries received by the closing date.
4. Closing date for this competition is August 17th, 1998.

Send your completed entry form to:
CDPlus EZWriter Competition • Eyetech Group Ltd • The Old Bank • 12 West Green • Stokesley • North Yorks • TS9 5BB

Just answer these simple questions:

1. *What does IDE stand for?*
2. *What does ATAPI stand for?*
3. *What does TAO stand for?*
4. *How much space is there on five gold CDs?*

Please include me in your draw to win a CDPlus EZWriter. I accept and understand the rules and conditions specified.

Answer 1 ....

Answer 2 ....

Answer 3 ....

Answer 4 ....

Name:...

Address:..

....

Postcode:...

Tel:..



CD-ROM Round up

More shiny discs come Ben Vost's way. What on earth can they be for?

Cast your mind back to our May issue this year. That's the one with the gold woman on the cover and the freebie copy of *Personal Paint 7*. Remember? Anyway, in that issue on pages 66 and 67, we reviewed *Backgrounds Unlimited* from EMComputergraphic and the *Scene Archive CDs* (volumes 1-4) from Tony Hasselbacher in Australia.

Funnily enough, this month we received *Backgrounds Unlimited 2* from EMC and *Scene Archive CDs 5 & 6* from Mr. Hasslebacher. We simply couldn't resist putting them back together again.

Scene Archive CDs volumes 5-6



Imagine this moving at 25fps with a thumping house track behind it as objects swirl on and off the screen. Now you're getting it!

The Amiga "scene" is almost as vibrant… no wait, I said that last time. You get more of what you expect with Tony's new CDs (he hopes to have volume 7 by the end of the year) – a CD absolutely filled with DMS archives of floppy disks. Exactly the same pros and cons exist for these CDs as for the previous volumes. The main problem is that it's hard to know what individual disks are, even with the benefit of the laboriously compiled AmigaGuide files that index the CD by group, demo name and category.

As we mentioned before, it would be better to have a huge AmigaGuide file that detailed all the demos on all the CDs, rather than forcing the user to go through each one individually, trying to find what they are looking for.

Also, because these discs are based on Tony's own collection, they aren't numbered in any recognisable format from 17-bit or the like.

Even if you wish to use them on a BBS, it's not easy since the DMS files are all referred to simply by number, forcing the caller to download the guide files first, rather than giving them some idea of what sort of demo they are downloading. Again, it might have worked better to pick a method of categorisation and subdivided the disc accordingly, although thinking of a method of categorisation that would suit everybody might be difficult.

SUPPLIED BY: Tony Hasselbacher, 96 Robinson Road, Morley, WA 6062, Australia. Email hweight@iinet.net.au
PRICE: $15US or $25AU for each CD, $80US/$130AU for all six, P&P included . Mention our review and get a discount!

OVERALL VERDICT:
Again, it's very comprehensive but hard to use.

81%

Backgrounds Unlimited 2

AMIGA GOLD FORMAT

Like the original *Backgrounds Unlimited*, this CD is designed for the discerning *Scala* user, but it breaks with the previous tradition of offering 24-bit JPEG versions and images in the correct size and aspect for NTSC screens. Instead, it has over 700 256-colour backdrops for video and multimedia production.

The CD divides up into 26 "sets" of complementary backdrops that are designed to give your presentation a coherent feel. Some of the textures are very "lively" but all have their uses – there's no wasted material on the CD.

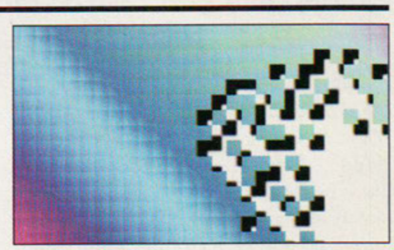
You'll often find that if one colour scheme doesn't work particularly well with what you are planning to do, you can find similar images somewhere else on the CD which have a better feel for what you have planned .

Of particular use are the world maps, done in a variety of styles that will suit budding multimedia hounds looking to get that multinational corporation presentation contract. On the other hand, some of the other images lean much more towards the whimsical end of things.

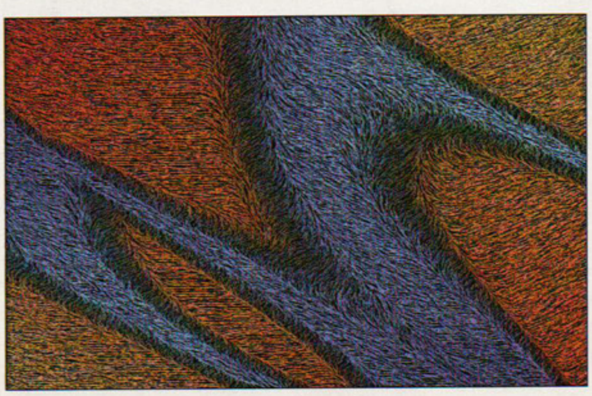
Overall, this CD is an ideal complement to the already existing *BU1* and *Phase* series of CDs. If you're involved in video production or multimedia, you owe it to yourself to get a copy of this CD.



All the backdrops on the CD are beautifully indexed and organised, so it's easy to find what you want.







SUPPLIED BY: EMComputergraphic (01255) 431389
PRICE: £34.99 + £1.50 P&P

OVERALL VERDICT:
If anything, *BU2* improves on the previous CD by offering a greater variety of images, rather than just duplicating them in other formats.

94%

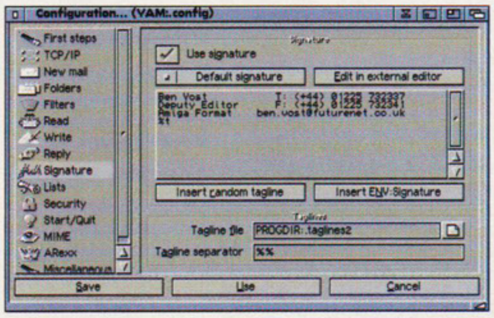
Yet Another Mailer 2

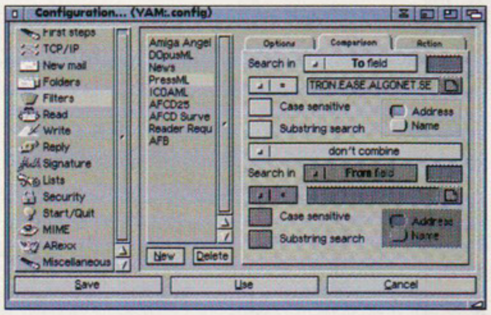
Shareware doesn't often get a look-in in the Seriously Amiga section, but when a piece of software is this good… **Ben Vost** goes googoo-eyed.

Nick and I were having a discussion the other day about the fact that the Amiga probably has more Shareware of commercial quality than it actually has commercial software right now.

As an example, take MUI, *ScalOS, Voyager, AmiBroker* and *YAM2p4*. What's even stranger about *YAM2p4* is that its author, Marcel Beck, doesn't even class it as Shareware, where the perceived implication is that you are supposed to pay for it if you like it.

If you like *YAM2p4,* Marcel would love to hear from you. He'll probably even accept a bar of chocolate, but there's no onus on the user to pay up – it's just the satisfaction of a job well done for Marcel.





YAM gives you complete control over your environment, from making sure your signature looks right to ensuring that mail ends up in the correct place.

> … in all that mail package writing experience, no-one has managed to beat this one chap living in Switzerland…

But let's start at the beginning. *YAM2p4* is the second incarnation of *YAM,* or *Yet Another Mailer.* It was pretty good at version 1.3.4/5, the version that most people are probably still using, but for those with beefier machines, the newer version offers so much more that it's certainly worth moving over to now.

At the time of writing this piece, version 2 is still at preview 4. This means that while v2 hasn't officially been released yet, there's a preview available that's somewhere between beta status and official release, mainly because of the fact that Yammers all over the world were clamouring for something to play with (and *YAM2* was originally planned for autumn last year).

While the previous previews weren't stable enough to cope with the demanding amounts of email I receive every day, this one is not only stable enough but it provides enough incentive to make sure that people still using 1.3.4 or .5 won't go back to it, even though that version takes less memory, is faster to load and seems marginally more stable.

In case you hadn't worked out whether you were simply going to turn the page or not yet, based on the fact that you don't have Internet access, don't go just yet. Yes, *YAM2p4* is a POP3 email client (to give it its technical name) but it's also a stunning piece of software in its own right. It uses MUI for its interface, which I know will turn off that minority who have access to the Internet but still refuse to use MUI, but that can't be helped. It's certainly a better-looking, better-performing, easier-to-use piece of email software than any of the *ClassAct-* or *Gadtools-*based packages like *Thor* or *Eucalyptus.*

YAM IN ACTION

Very few Amiga users have knowledge of using an Amiga on a "proper" network with Internet gateways and the like, but *YAM2p4* performs flawlessly on it (as, admittedly, does most Amiga Internet software). I come in in the morning, boot my machine up and *YAM* goes and gets my email once *Miami* is up and running. I can respond instantly to anyone who sends me mail and I can receive mail as soon as they send it.

Having an Amiga online really shows you how good an Amiga can be. Anyway, I'm sure you still want more details about *YAM2p4* (referred to as simply *YAM* from now because it's easier) to convince you of its worth.

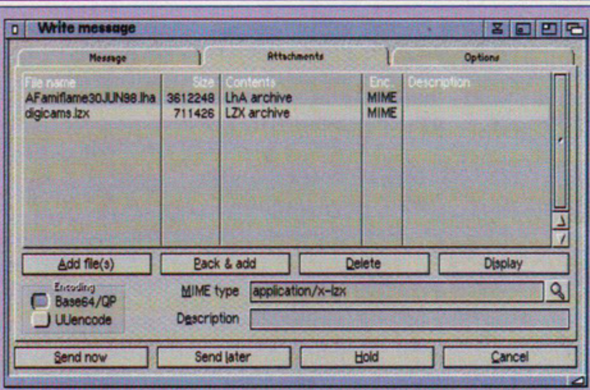
YAM is a POP3 email client which uses MUI for its interface. Nearly all ISPs I have experience of offer POP3 mail as standard and even those that don't, like Demon, offer it as an option. You need to have POP3 access before you can use *YAM* as SMTP won't do.

When receiving new mail, *YAM* allows you to choose whether to download it based on the mail's size so you can wait until after 6pm to download those 100K pictures while getting all your other mail as normal.

WALKING INTO THE WIND?

No, not that sort of MIME. What we're talking about is Multimedia Internet Mail Extensions. *YAM* can attach any kind of file to an email when you send it and so can become as much a person-to-person file transfer program as an email package. Best of all, *YAM* can actually automatically archive the files you attach to make the email smaller and thus faster to send.

Obviously, it is also adept at receiving MIME encoded emails and offers you the ability to display or save them as you desire. If you're unsure what MIME actually is, it's pretty much anything that you can't type into an email or is too long for you to want to. MIME attachments can be anything from pictures to sound files, AmigaGuides and word processor files.

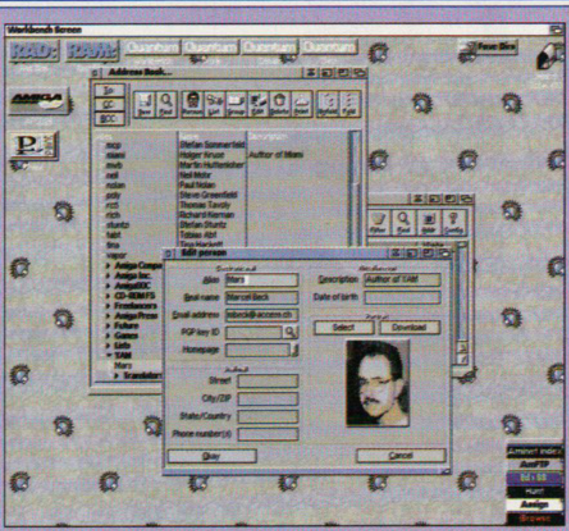


Adding files to your emails couldn't be easier. You can click on the "Add file(s)" button, and multiselect in the file requestor, drag and drop into the window or even make your own LZX archive by clicking on the "Pack & Add" button.

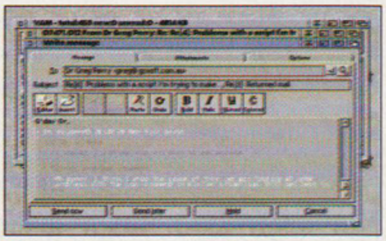
RETURN TO SENDER

An email package isn't much good without an address book of all the email addresses you have. These address books tend to vary from a simple text file with the user's name and his or her email address, to more elaborate ones that hold the user's address and phone number to boot.

***YAM*'s goes even further by allowing you to input people's names, addresses, phone numbers, PGP key IDs, homepages and a short description, as well as the ability to enter their date of birth in order to get reminded of their birthday when *YAM* notices it, and even their picture so you can have it glowering at you while you read email from them. Having their homepage included in the address book makes it very easy to find – simply click on the button beside the entry and whatever browser you are currently running automatically starts loading that page, thanks to the wonder of ARexx.**



You can even put a pretty picture of the person you are emailing into the address book. Then, when they email you, their picture appears in the read window. Aaah!



With multiple undos, text styles and coloured text showing you what you've typed and what you're replying to, *YAM*'s editor is a far cry from the bad old days of using *Quickmail* on the Mac.

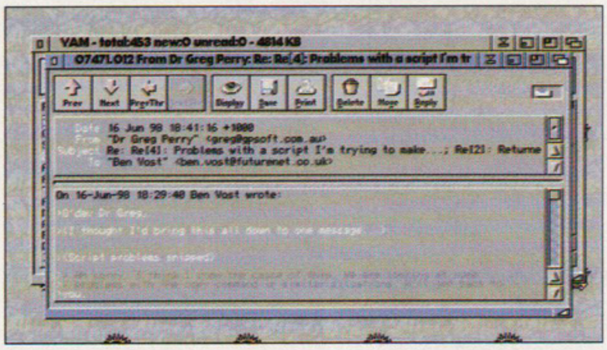


Small and neat and incredibly powerful.

Once downloaded, you can sort your email into folders to separate out those mailing list messages, or just ones you have to deal with separately, such as email for other household members. YAM's filtering is very comprehensive, allowing two matches to various criteria in order to be able to tell the difference between two similar emails.

Additionally, you can always use MUI's drag and drop facility to move messages to other folders, simply by grabbing hold of them and then dropping them over the folder name.

The reading/writing/replying part of *YAM* is very well thought out too. Using Allan Odgaard's TextEditor.mcc MUI custom class gives the user the ability to set up keyboard shortcuts so that they are the same as other favoured text editors, and an unlimited undo facility makes it incredibly useful, so much so that it would be nice to see a standalone text editor written by Allan.

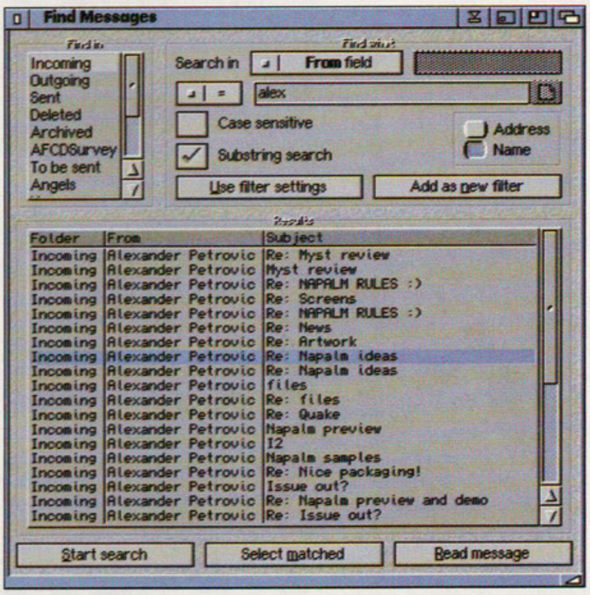


You can navigate through *YAM*'s interface by using either the mouse or the keyboard.

You can also have various styles applied to the text and signatures are treated as separate objects which are automatically removed when replying.

Talking of signatures, you no longer need a separate piece of software to apply a random tagline to your emails as *YAM* can do that automatically. It can also reply differently to emails from other parts of the world. For instance, if I get emails from Australia, the greeting when I reply is automatically changed from "Hi" to "G'Day". The only downside is that it seems that you can only have one of these.

Further options when you write your emails include the ability to PGP encrypt it and even send it via a remailer make your email anonymous. This version of *YAM* supports message importance rating, so your emails can be of low, normal or high importance.



***YAM*'s find facility allows you to look for that email you've lost, based on the person's name or many other criteria.**

CONCLUSION

All in all, *YAM* is the nicest email package I've ever used and we haven't even touched on its ability to use an external spell checker in the editor, a search facility that can use the filters you set up for folders, the fact that it can reply to or forward multiple emails as one or "bounce" messages (send them on as though they had been addressed correctly in the first place), the comprehensive ARexx port and loads more. Just for comparison I counted up the number of packages I have used – *Elm, Metamail, AirMail, Eudora* (*Pro* and *Lite*), *Netscape, QuickMail, Lotus Notes* (which is more than an email package really), and more – and realised that in all that mail package writing expertise, no-one has beaten this one chap living in Switzerland, writing on his own (with help from beta testers and MUI custom class authors) and charging nothing for his creation. Beat that you PC and Mac owners!

DISTRIBUTOR: On *AFCD28* or from http://www.yam.ch
PRICE: Absolutely free!
REQUIREMENTS: MUI, 6Mb fast RAM min. ('030 or higher recommended.)

SPEED: ●●●●○
Not as fast as *YAM 1.3.5*, but it's doing a lot more.

MANUAL: ●●●●○
Comprehensive AmigaGuide docs.

ACCESSIBILITY: ●●●●●
Much easier than many others.

FEATURES: ●●●●○
Just needs some form of security.

VALUE: ●●●●●
At this price, how can you not?

OVERALL VERDICT:
A glorious application that is very hard to beat indeed.

95%

VDC200 Digicam

While digital cameras are all the rage, they still aren't easy on the pocket if you want quality. Ben Vost examines the latest compromise.



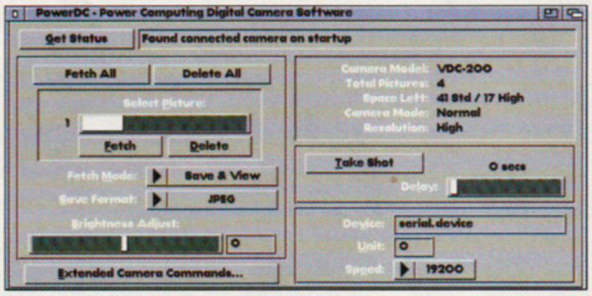
Easy to use with a clean interface. Absolutely superb!

Mustek's name was familiar to Amiga owners only as a manufacturer of cheap flatbed scanners, until the last issue of *Amiga Format* where we looked at Mustek's mediocre-quality digital camera, the VDC100. Now we have its bigger and altogether more useful brother, the VDC200. This camera looks much more like a "proper" digital camera with its LCD panel and more solid controls, rather than the VDC100's disposable camera looks, but it still gives the same resolution images as its smaller sibling.

However, although the same quality of pictures can be taken size wise, you'll notice that the colour quality is better and that the camera lets in a lot more light in its large aperture mode (yes, it still has a switch to determine how much light falls on the CCD).

The camera also has facilities common on other digital cameras, such as the ability to view all the taken pictures, protect them, delete one or all and the like. Like other digital cameras, the LCD panel takes up more battery power than your favourite remote controlled car and so is best only used when necessity dictates, like for Macro shots or where you're worried about the framing of your subject because the viewfinder doesn't look through the lens. But most importantly of all, the camera also has the facility to take a flash memory card to allow you to take a lot more than the standard 20 640x480 shots. The VDC200 will take them all, up to the very expensive 32Mb cards, giving you the ability to hold a huge range of pictures. The camera itself is fairly fast "to boot up", but there's a noticeable lag of around eight seconds between being able to take pictures.

> "Like other digital cameras, the LCD panel takes up more battery power than your favourite remote controlled car."



At £200, the VDC200 is twice the price of its smaller sibling, with no better quality in terms of image size. So why would you want it? The answer is simple. Like the Kodak DC-20 camera we reviewed last year, the VDC100 is very cheap, but the downside of this means that it isn't very good – neither is expandable, neither has a flash, neither has an LCD panel to check your images.

Sure, you can take digital pictures with them both, but they aren't really a patch on their more expensive stablemates. This is definitely a case of where the more money you spend, the better quality you get.

This much is also true of the VDC200, but for your two hundred quid you are getting a useable system. Other cameras, like the new Fuji Mx7, are much nicer, much higher resolution, but also much more expensive. I would say that buying the VDC200 will give you an adequate introduction into a hobby that's currently even more expensive than computing!

THE SOFTWARE

The VDC200 comes with Power's *PowerDC* software from Oliver Roberts. In essence it's identical to the version that came with the VDC100 (apart from the addition of the progress bars that Nick wanted), but it does offer some extra controls from a new button in the bottom left-hand corner of the interface. This opens up a new window which gives you access to controlling the camera, such as being able to remotely turn on the LCD panel, adjust the camera's brightness and the like. My only quibble would be that it would be nice to have all of the similar commands grouped together, such as "Mode: Camera" and "Mode: Playback" instead of "Camera Mode" and "Playback Mode", so they're alphabetically grouped together rather than being apart.



Colour reproduction is much improved (above), as is light level sensitivity.



DISTRIBUTOR: Power Computing (01234) 851500
PRICE: £199.95
REQUIREMENTS: None
TESTED ON: A4000/'040

SPEED: ●●●○○
That eight second lag between photos really catches you out.

MANUAL: ●●●○○
The docs for *PowerDC* are OK, but the Mustek manual isn't so good.

ACCESSIBILITY: ●●●●●
Point and click at its best.

FEATURES: ●●●●○
Much better than the VDC100, but could we have higher resolution?

VALUE: ●●●●●
The best way to get into digicams.

OVERALL VERDICT:
A cheap and reasonable digicam, making it ideal for most people.

87%

Jaz 2 Drive

AMIGA GOLD FORMAT

It's twice as big and a lot prettier, but is the **Jaz 2** twice as good? **Ben Vost** investigates.

The original Jaz drive blew the competition away. Never had we had such easy-to-use and such high capacity removable media before. Sure, some of the MO drives had as large a capacity, but they were much slower to write than hard drives.

> ... it has also doubled in size (internally) and can now save up to 2Gb of your data on a single cartridge.

The only problem with the Jaz drive, in our experience, was one of overheating. We actually lost two Jaz drives and several cartridges because of this, but this new drive should suffer none of these problems, thanks to a new design which puts the power supply outside the case, in much the same way as the new Zip Plus works. In addition to this new Jaz drive's cooler exterior, it has also doubled in size (internally) and can now save up to 2Gb of your data on a single cartridge.

However, due to the economies of scale that the Zip drive has introduced iomega to, the new drive, and it's cartridges, aren't much more expensive than the original.

With the Zip you got software and there's plenty on Aminet too, but as far as I know, no-one has written suitable drivers for the Jaz 2 yet, so I tested it on the basis of formatting it as an RDB disk.

I think you're far more likely to want to format one of these drives as an RDB device because of its huge size, certainly more so than with the Zip, where you might have two or three in use for a particular project.



In a smaller, Zip-style case, the new Jaz has twice the capacity.

As a hard drive (because that's how the Amiga sees it), it performs very well, at least on the A4091 I have installed in my machine. As it's unlikely you'll have such high powered hardware, you're more likely to try it on a Squirrel, Oktagon or similar SCSI controller, and on these you'll find it works as well as any of your existing hard drives.

Formatting it under *HDToolbox*, I would give it at least 500 buffers (if you can afford the memory), but leave the block size at the default of 512 to save problems if you have to use more than one cartridge per boot session.

Once you've DOS-formatted it, you should have just over 1.9Gb of useable space on each cartridge.

The Jaz 2 is a very nice drive which can be used on pretty much any Amiga with a SCSI controller, but there is an additional cost if you don't have either a 50-way microD output on the back of your controller, or a 25-way D-sub. The Jaz 2 comes with microD ports (two of them) on the back and a microD cable.

It does have a 25-way D-sub adaptor with it, but having to buy a 50-way centronics type, or other adaptor, could prove a costly business. However, I've found it to be fast and reliable in use, and it's also quiet enough, so it gets the thumbs up from me.

TWO INTO ONE WON'T GO

Although the current Jaz drive is fully backwardly compatible, able to read original Jaz 1Gb cartridges on its hardware, there's a dire warning on the box for the media that states that you should never, under any circumstances whatsoever, insert a 2Gb cartridge into a Jaz 1Gb drive. I'm sure that this won't affect very many people, but it does seem odd that iomega haven't relied on any kind of mechanical intervention to prevent this from happening. Comparing a 1Gb cartridge to a 2Gb one, I can see no differences between the casings and only a colour change where one says 2Gb.

Surely a raised bump on the 2Gb cartridge (and an appropriate notch on the Jaz 2's casing) would mean that while a 1Gb cartridge would fit happily into the 2Gb drive, the same was not true the other way around. Even if they made the cartridges from a different colour plastic it would be some help. Most Amiga owners are unlikely to have the two different formats, or need to swap that amount of data between people, but for those individuals who already have an existing Jaz and feel the need for the 2Gb version, be careful not to apply your own labels to the cartridges unless you can make it more obvious which is which.

DISTRIBUTOR: imoega corp (http://www.iomega.com)
PRICE: £399 (£99 per 2Gb cartridge)
REQUIREMENTS: SCSI controller with 50-way microD or 25-way D-sub connector, or adaptor

SPEED: ●●●●●
Much faster than the original drive.

MANUAL: ●●○○○
Kind of irrelevant to Amiga owners.

ACCESSIBILITY: ●●●●●
Plug and play at its best.

FEATURES: ●●●●●
Auto termination, on-off switch, universal power supply. Excellent.

VALUE: ●●●●○
Gets cheaper every time you buy a new cartridge.

OVERALL VERDICT:
Fast, easy and you don't need to keep swapping the cartridges over.

92%

Scan Magic-Flicker Fixer

Nick Veitch looks into a sharper way to get a better picture.

We reviewed Power Computing's internal scandoubler a few issues ago *(AF111, 88%)*, so it should be no surprise to find that this version works in a more or less identical way.

Attaching internally to your Amiga's Lisa chip (thus making it A1200/A4000 only), the unit takes the video signal directly from the Amiga's chips and runs it through some circuitry, bringing the vertical scan rate up to 31kHz.

> **While it works and is technically a good solution, it does seem to be a bit exposed and vulnerable...**

This means that it will be possible to display all your screenmodes, including the lo-res ones used for old games and similar software, on a standard VGA monitor or similar. Since VGA monitors are pretty cheap and offer good picture quality, this is a very good thing.

The new addition to this model is flicker fixing. If you have ever used an interlaced screen mode, you'll know what a headache inducing, eye-straining, pain in the retinas it actually is to use. Unless you select a cunning palette, everything on the screen will be all but illegible.

You can always avoid the problem by simply not using flicker fixed screenmodes. Unfortunately, some programs require you to use these modes, mostly video titlers and some older applications and games, and depending on your monitor, these may be the only way you can get a decent sized screen (724x576 on a standard PAL display).

I did refer to the previously reviewed scandoubler as "ugly". This might have been a bit harsh. Perhaps I should have said simply, "less than elegant" or perhaps, "aesthetically challenged". It is a neat solution, with a ribbon cable coming out of the back of the case, joining a connector which plugs into the Amiga's video port. Output is via a VGA-style D-plug, the type which is also used on the Microvitec and some Commodore monitors, such as the 1942.

While it works and is technically a good solution, it does seem to be a bit exposed and vulnerable and would certainly have benefited from being rehoused inside a socket shell, perhaps like the old Commodore "silver-box" VGA adaptor.

Another minor concern is the internal connection. Using upended PLCC sockets seems to be the popular way to attach add-on boards to existing chips. While this is fine most of the time, you should still be very careful when attaching the unit as a short across some of the pins could cause damage. When the machine heats up, these connectors have also been known to pop off, which can be a bit disconcerting. This isn't really a fault of this unit as, bar soldering on the connections directly to the motherboard, there isn't really another way to achieve the desired goals – just remember that you need to fit the board correctly and securely.

So why not just produce an external flicker fixer? As the flicker fixer uses video signals direct from the chip, there is no degradation in quality. This is likely to be an issue for external devices, which will have to convert to and from RGB in order to flicker fix the signals. At the sort of speeds this conversion has to take place, some signal loss is inevitable.

The only limitations to the flicker fixing ability of this device seem to be the inability to handle Super72 modes properly, but as these screenmodes are not all that widely used, this is hardly much to worry about.

Once installed, the flicker fixer unit is transparent in use and you'll never know that you have it, except, of course, you will be able to display screenmodes without flicker on your A1200. Quite a result and, at the price, it is certainly worth considering over the scandoubler.



It's not particularly pretty but this scandoubler and flicker fixer provides impressive results.

DISTRIBUTOR: Power Computing
PRICE: £99.95
REQUIREMENTS: AGA Amiga

SPEED: ●●●○○
No speed issues are really relevant.

MANUAL: ●●●●○
It's pretty much fit and go.

ACCESSIBILITY: ●●●○○
Once it's installed you can forget about it.

FEATURES: ●●●●●
A scandoubler and flicker fixer in one.

VALUE: ●●●●●
A great price considering the difference it makes to your set up.

OVERALL VERDICT:
An excellent solution, giving you a quality, stable display.

89%

powered by AMIGA

CrossMac™DOS 7

AMIGA GOLD FORMAT

ITS HELL HAVING ALL YOUR FILENAME.S TRUNCATE.D TO EIGHT.THR, BUT BEN VOST HAS THE SOLUTION.

AFCD29:-In_the_Mag-/CrossDOS — ON THIS MONTH'S CD

We all take *CrossDOS* for granted. It probably came with your machine and you can read standard MS-DOS disks with no problems, but now that Windows95 is on the scene, there is an added difficulty – that of long filenames.

Windows95, for all its faults, will allow you to have filenames up to 256 characters in length, whereas in the past you were limited to eight.three, the well-known mnemonic to remember that all MS-DOS filenames had to have eight characters, a full stop and then a three character extension. Not only that, but all names were also forced into upper case. This new version of *CrossDOS* allows access to "proper" Windows95 filenames with mixed case, spaces, foreign characters… the whole shebang, basically.

> "There isn't much more to tell you, other than the disk still comes with horrible icons and an insane installation script…"

And that's really it. There isn't much more to tell you, other than the disk still comes with horrible icons and an insane installation script, the manual is as helpful as it always was but contains details of programs that haven't been available for years and has problems in the typesetting department (can you make sense of the mountlist?).

However, installation couldn't be easier. All you need to do, ignoring the dire warning that Consultron give about using the installation procedure, is copy the CrossDOSFileSystem to your L: directory, overwriting the existing one that's in there, and voila! You now have full long filename access to devices that you previously had mounted with CrossDOS before.

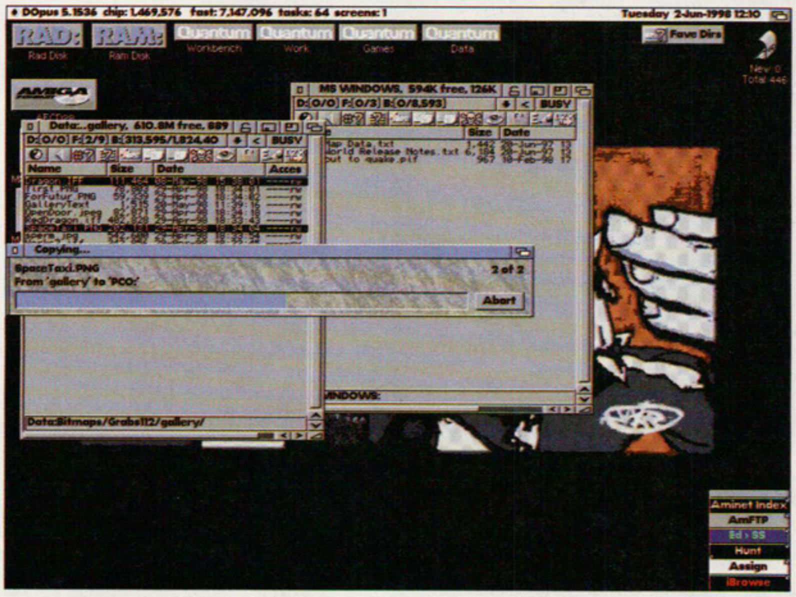
The file system works with floppies (both high and double density) and hard drives (it's great for Siamese System owners using a shared drive), taking in removable drives like Zips and SyQuests along the way.

It would be nice to see *CrossDOS* support the Mac way of doing things as well, since the Mac (running System 7.5.3) can't cope with Windows95 long filenames by default, and so litters the disk with translation tables and the like.

Not even if you have *CrossMAC* installed can you make easy sense of those files, but then I guess that not everyone will need translation between all three formats at once. Even so, it's my leading suggestion for *CrossDOS 8*.

At the end of the day, *CrossDOS 7* does exactly what it's supposed to do. People with Siamese Systems will be praising Consultron to the heavens now that their shared drives don't have to have archives on them any longer, and users who are forced to deal with Microsoft at work but want the flexibility of their Amiga at home will find it makes their lives even easier.

If you come into contact with PCs regularly, for whatever reason, make sure that this is on your hard drive.



PC disks can now be treated just like standard FFS volumes.

I CAN USE PC DISKS?!

Yes, you can. You really need to have a hard drive for this to work properly, but with WB2 and above, all you need to do is drag the PC0 icon from Storage/DOSDrivers in to Devs/DOSDrivers and the next time you reboot you'll be able to read MS-DOS formatted disks. Since you probably have an A1200, you'll be limited to reading PC 720K disks and writing to them, but if you've got a high density floppy drive you can then have access to proper 1.44Mb high density MS-DOS-formatted floppy disks. Unless you get *CrossDOS 7* you'll still have the problem of the 8.3 filename, but you can always use the Zip program that you'll find on this month's CD in order to compress files (which you can give an 8.3 compliant filename) and then expand them again on the PC using *WinZip* to keep the full filenames that you had on the Amiga.

WHAT ABOUT HARD DRIVES?

Yes, the CrossDOS you already have can mount Zips or even hard drives, but you'll need to know how to generate a mountlist for the drive. *CrossDOS 7* actually comes with a program that can generate mountlists automatically for you.

WHAT ABOUT CD-ROMS?

Doesn't matter. All CD-ROMs (for whatever platform) should comply with the ISO 9660 standard or the Rock Ridge one, which all modern Amiga CD-ROM filesystems can recognise.

SUPPLIER: Weird Science 0116 2463800
PRICE: £49.95
REQUIREMENTS: Any Amiga, hard drive recommended

SPEED: ●●●●○
General floppy access could be faster.

MANUAL: ●●●●●
Covers all eventualities, good index.

ACCESSIBILITY: ●●●●●
Simple for the user once set up.

FEATURES: ●●●●●
Now with tools to create mountlists, etc, it's even better than ever.

VALUE: ●●●○○
A bit expensive for less than a disk full, but if you need it, invaluable.

OVERALL VERDICT:
One in the eye for those who criticise the Amiga's file system handling.

90%

Long term Review

A Tower of strength

With some excellent tower units now available, Jamie Winter looks at the DIY option.





Although I'd considered putting my A1200 into a tower for some time, I'd been put off commercial solutions, not so much by the cost of the towers themselves but by the "hidden" costs of setting up an external keyboard and fitting my add-on devices adequately. The solution came when I bought an old A1500 for £50. This came with a Philips monitor and an external keyboard. Bargain!

I had already come across Sean Curtin's hack to replace the A1200 keyboard with an external unit, so out came the soldering iron and I was away.

I'm no electronics wizard and indeed I'd only used a soldering iron once before in anger. The hack involves desoldering and bending out a couple of very small legs from one keyboard chip and then soldering on three wires to three other legs. This was scary stuff, so I'd recommend you only undertake this if you're confident or can afford to destroy your machine.

I used the wires from some old telephone cable and bought a 5-pin DIN socket from Maplin for 50p. After much fiddling and a few crossed wires (dangerous mistakes those) I got the keyboard working, and all without burning the house down.

Now it was time to put the motherboard into the case. I bought the full tower from a local PC dealer for £57 but promptly ran into a problem.

The PSU which came with the tower was designed for an ATX-style motherboard. My conversion instructions (from an old Amiga magazine) were for an AT unit. Luckily, a call to the dealer with pleas of ignorance resulted in a replacement AT-style PSU.

The case required some serious hacksawing to remove struts that were in the way and to turn the PSU 90 degrees so it stood upright. However, this was worth the effort as it allowed the motherboard to fit into the case vertically with the ports sticking out the back. This meant I avoided having to buy loads of extension leads.

I measured up the motherboard and glued in some wooden struts. I had to be careful to allow enough height for both my accelerator card and my Squirrel interface to fit. I then desoldered the power, HDD and floppy drive lights from the small PCB in the A1200. After cutting the wires from the tower case, I soldered them into the holes left on the PCB by the lights.

The PCB was then mounted inside the tower. This meant I had active power and hard drive lights, but alas the PC case had no equivalent for the floppy light. Still, no great loss as no-one uses floppies anyway, do they?

> "The end result of all this is a towered up Amiga which won't suffer any power supply problems..."



An Amiga, in a very tall tower. It looks impressive, it's practical and it's currently the most popular thing to do with your computer.

Once all this was done I screwed the motherboard into the case against one of the wooden struts. It's not as secure as I'd like but I don't plan to move the case about much anyway. I bought two extension cables from Maplin (£3.99 each) so the hard and floppy drives would fit into their appropriate bays in the case. I also fitted my old SCSI CD-ROM and connected it up to the Squirrel, with a spare SCSI socket trailing out of the back of the case for other devices. All these bits are powered from the standard cables attached to the PSU.

The end result of all this is a towered up Amiga which won't suffer any power supply problems and leaves plenty of room for further device expansion. The number of cables hanging out has been reduced because the PSU has a monitor pass-through and there's no external PSU required for the CD-ROM. Some parts of this process were, er, tense to say the least, but I think the final product was worth it. Now, where are those ads for backplanes and Zorro boards?

Assuming you've got the tools, this process is remarkably cheap. I did it for less than £120 and that included buying the A1500 with a monitor. Even if you can't source an Amiga keyboard cheaply, Eyetech are currently advertising A4000 keyboards for £39.95, so you could do a conversion for around £110.

Remember that commercial solutions are easier but start at £150 and are likely to cost considerably more when you realise you can't fit your Squirrel or your accelerator card without expensive adaptors.

YOUR REVIEWS

Have you got any software or hardware you couldn't live without? Got any that you'd happily chuck in the bin? Write a fair and accurate review of about 750 words and you could see your work appear in *AF*!

We will also need some good photographs of the hardware under review and a passport photo of you.

Send your reviews to:
***Amiga Format* • Long Term Review • 30 Monmouth Street • Bath • Somerset • BA1 2BW**

BEN'S VERDICT

It seems that towering up your Amiga is a craze that's sweeping the nation. More and more of you are either doing-it-yourselves or buying kits from the likes of Power Computing, Eyetech and Blittersoft to put your A1200s into monolithic blocks of metal and plastic. So, let's now hear from some of you who've bought ready-made solutions about how you're getting on with your shop-bought towers.

ShopWatch



Along with our free Reader Ads service, this is the best place to find someone who's got that elusive piece of hardware or software you need…

The ShopWatch entries have been steadily coming in from all over the world, proving that the Amiga is far from dead.

However, we've still been very disappointed with the number of UK nominations, so fill in the form on this page now and let us know about your local dealer!

There's even a chance of winning some goodies too…

AUSTRALIA

Amiga Innovations, 111 Cambridge Street, West Leederville, WA, 6007. ☎ +61 (08) 93881665.
Provides Amiga software and hardware support.

BELGIUM

Amiga Service, Rue Du Nord, 93, 6180 Courcelles. ☎ 32 71 458244.
Public domain, CD-ROM, software, hardware and services like scanning, hard drive recovery and laser printing.

AFI (Applications Formations Informatiques), Place des Déportés, 7 (ancienne place Maguin), 4000 Liege, Belgium. 32 4227 6588.
Full Amiga range, used to specialise in video solutions but can help on most subjects. Lots of second-hand stuff.

CANADA

RR#1 (Hwy 552 E), Goulais River, ON Canada, P0S 1E0. ☎ (705) 2560225.

FRANCE

DeltaGraph'X, 13 cours Blaise Pascal, 91000 Evry. ☎/fax +33 0 160 871617.
Amiga reseller.

GERMANY

ADX Datentechnik, Haldesdorfer Str. 119, 22179 Hamburg. ☎ 040 642 02656.
Amiga hardware and software reseller in Hamburg.

Softwarevertrieb Kanzmeier, Senator-Balcke-Str. 85, 28279 Bremen. ☎/fax 04 218 31682, email 01461.2277@compuserve.com

ITALY

Robymax, Via Varvariana, 14, 00133, Rome, Italy. ☎ 06 2042 7234, email robymax@mclink.it
Amiga CD-ROMs, games and hardware for sale.

Non Solo Soft, Casella Postale 63, 10023, Chieri, Italy. ☎ 011 9415237, email solo3@chierinet.it
Full range of Amiga software and hardware.

NETHERLANDS

Barlage-Denhaag, Rabarberstraat 142a, 2563 RP Den Haag, Holland. ☎ 070 448 0282, email barlage@mailbox.hol.nl
Hardware and software supplier.

Computer City, Zebrastraat 7-9, NL 3064 LR, Rotterdam. ☎ 31 10 4517722, email info@compcity.nl
Nearly all Amiga products and helpful staff too.

Amigis, Spanjaardstraat 53, 4331 Ep, Middelburg. ☎ 0110 625632, email info@amigin.nl
Amiga hardware and software.

PORTUGAL

Audiovisual, Rua Maria Matos, 6 – C/V Dta, 2675 Ramada, Portugal. ☎ 351 1943264, email info@audiovisual.net
Portuguese dealer and distributor, promises best prices for hardware and software.

RUSSIAN FED.

AmigaLine, Moscow, Zorge 6. ☎ 7095 943 3941 or 7095 943 3871, email ambartsumian@glas.apc.org
An Amiga-oriented computer shop located in Moscow.

Amiga Service, Office 309, Bumazhnaya Str 3, Sankt-Peterburg, 198020. ☎ 812 1868842.
A1200 hardware.

SPAIN

Club Byte, C/D. Juan de Mena, 21 bajo Izq, 46008 Valencia. ☎/fax (96) 3921567.

SWITZERLAND

Applimatic SA, Rte-de-Montreux 49, CH-1618 Châtel-St-Denis, Switzerland. ☎ +41 21 931431.

UK

Bolan Computing, 37A High Street, Staple Hill, Bristol, BS16 5HD. ☎/fax 0117 9140047.
Sells Amiga hardware and software, as well as offering repairs and upgrades. There is a selection of software on the shelf ready to buy and a load of Amiga and Siamese systems that are on display as well.

Classic, 11 Deansgate, Radcliffe, Manchester. ☎ 0161 7231638.
PD, commercial games, CD^{32}, CD-ROMs, hard drives, CD-ROM drives, A1200s, floppy drives, disks, modems. Free fitting service on hard drives.

Level 7, 113 Victoria Road West, Cleveleys. ☎ 01253 859004.

Planet Games, 3 Royal Oak Buildings, Waterloo Road, Blackpool. ☎ 01253 348738.

Game, Sheffield Town Centre. ☎ 0114 2729300.
Sells games and utility disks, and it is also possible for customers to reserve games.

Swops, Corner of Bold Street, Fleetwood. ☎ 0123 776977.

Electronics Boutique, 30 The Mall, Golden Square, Warrington, Cheshire. ☎ 01925 240731.
Selection of software and peripherals.

You can help us!

If you want to contribute to the great *Amiga Format* ShopWatch project, all you have to do is fill in the details of your local retailer. The information will be checked out by our ShopWatch team and will feature in our monthly directory.

Shop Name ....

Manager ....

Address ....

....

....

....

....

....

Country ....

....

Telephone Number ....

Amiga Products ....

....

Any Other Comments

....

....

Your Details

Initials ....

Surname ....

Address ....

....

....

....

....

Postcode ....

Daytime tel no. ....

Everyone who submits details of an Amiga store will be entered into our special competition with the chance to win some great prizes. More details on that later.
Send entries to Amiga Format • 30 Monmouth Street • Bath • Somerset • BA1 2BW.



Workbench



AFCD29:-In_the_Mag-/Workbench

From Zips to Zorros, John Kennedy has all the answers. Write to: **Workbench • Amiga Format • 30 Monmouth Street • Bath • Somerset • BA1 2BW.**

DRIVE IT HOME

I have recently bought an IBM 344Mb hard drive for my Amiga 1200. To start with, each time I turn it on I have to reboot it before it boots up. This would be alright if all the software I install to it would work, but some doesn't.

I have found that any software I drag across to hard drive will not work. When I try to load it a requestor comes up saying "Unable to open your tool" and then whatever program it is.

This happens with *PPaint*, *DPaint*, *DOpus*, *Moviesetter* and some others. Please could you tell me how to get these programs running?

Philip Williams
Essex

What is it with IBM hard drives? It always seems to be smaller IBM drives which don't cold boot and have problems with certain programs. OK, the standard response is to recommend you try cutting pin one on the IDE ribbon cable. This sometimes cures the booting problems, but not always.

Secondly, the "Unable to open your tool" error with those programs is a problem with the MaxTransfer setting. You can twiddle with this value using the HDToolbox *utility. Select Partition Drive, Advanced Options, File System change and enter a new value into the MaxTransfer box (try deleting a single "f" to start with).*

GET HIM STUFFED

I have just received the May issue of *AF* and I was interested to see letters to Workbench concerning the use of the Kodak DC25 digital camera. I too have one of these cameras and I must admit that I decided to purchase one after reading John Kennedy's article and because *AF* gave away his program to download the photos into my A1200.

Even though John said the program didn't always work and was possibly bugged, I have had a good success rate of downloading pictures into my Amiga using this software.

My setup is an A1200 with an old GVP Zorro II accelerator board with FPU. The serial port preferences are set as follows: Baud rate set at 31,250. Input buffer set at 1,024. Hand shaking set at none. Parity set at even Bits/char set at



A new version of the *AmiDC* software should soon be available on the Net, and it's on our CD this month too.

8. and stop bits set at 1. The only problem I have is that I can only seem to download one picture at a time. If I try a multiple downloading then the program crashes.

Like your correspondents, the program tells me I am using standard mode when I know I am using hi-res mode, but unlike your correspondents I don't suffer any colour loss.

This is because I don't use *DPaint* or *PPaint* to print my pictures. I use *Turboprint Graphics Publisher* because this program easily accepts 16 million colours. I find that if I use *DPaint 5* or *PPaint 6.4* then they reduce the amount of colours to 256 which can have a strange effect on the photos.

When I print them, I always use the proper paper, glossy on one side, and the results I get with *Turboprint* and my Canon 4100 printer are excellent.

One tip I must give people is this – because the lithium batteries that the camera uses are very expensive (£13 for two) get yourself an AC/DC adaptor with multiple settings and tips for about £7. Don't even think about getting a Kodak one because they cost about £50 and the cheap one works just as well.

Roy Lacey
Bristol

Hurrah! At least one person got the program to work! The good news is that an improved version of AmiDC, *and an* ImageFX *plug-in, is nearly ready. You should check my web site (http://www.sticky.net) to see if it's there yet, ready to be downloaded. It'll also be on the* AF *coverdisc this month.*

Good tip about the PSU, but please be careful when buying the non-Kodak variety and check the output voltage polarity and the supply current. Obviously we can't accept responsibility if you fry your DC25, but I've been using a Uniross UNI1200R adaptor, which cost a few quid at the local Argos shop, for months. My own tip is to look out for the special camera batteries that look like two lithium batteries joined together because they ARE two batteries joined together, and a swift blow with a screwdriver and a hammer separates them. The twin batteries are cheaper than a pair of single ones.

MARRIAGE WITH CONVENIENCE

Last year I purchased an A1200 and have since installed a hard drive. I now wish to install a CD-ROM drive and put my whole kit into a PC-tower system.

This PC-tower seems to be the cheapest option open to me. I have been assured that it is possible to marry the two systems. Please could you tell me how to go about this?

Alan Semple
Millom

Well yes, it's possible, although if you just nip out and buy the first PC case you find then it won't be easy. PC and Amiga motherboards are entirely different shapes and sizes, and fitting the Amiga into the case is no easy task – have a look at back issue AF99 *to get an idea of what is involved.*

You'll have to sort out the power supply connections, but more importantly, what are you going to do with the keyboard? The cheapest option would really be a SCSI CD-ROM drive connected to the PCMCIA slot. HiSoft sell a double speed drive (which is adequate) for £79.95.



For all the details on towers, see *AF99* – call our back issues department on 01458 271102.

POCKET POWER

Please tell me if you know of any Amiga programs that can convert and manipulate Psion .Pic files to Amiga .iff or .gif and back to .Pic, etc, and if so, what are they?

What makes it worse is that I know such items have existed but to date I have drawn a total blank trying to track them to their lair. A program I would kill for would be a Psion emulator for the Amiga (I do own the comms program *Amiga NCP*, the next best thing) then such problems as this would not arise. I know such beasties exist on the PC so why not on the Amiga?

Why should the devil have all the best programs? I own a Psion Siena with 512K memory and a non-Windows 16-bit true multi-tasking OS. Does that sound familiar to anyone?

Bill Power
Portadown

You're in luck: there appears to be a Psion .pic program on Aminet. We've included it and the AmigaNCP program on our cover CD this month for the convenience of any Psion-owning Amigans.

You'll find them both in the AFCD29:-In_the_mag-/Workbench drawer, along with the latest version of AmiDC.

I can't seem to find a Psion emulator for the Amiga. The PC versions are probably for registered developers and are probably officially sanctioned, but, as far as I know, there is no sign of an Amiga version. Sure, I'm a Windows CE fan so I don't really care much for Psions anyway!

LIMITED COLOURS

On using the excellent *ImageFX 1.5* I have been largely impressed with the power of the Amiga, especially on the standard A1200 up to my own 68030, 50MHz, 10Mb system.

My problem is with the render control. Every time I render my creations it comes out with a horrible 4/16 colour version of my picture, whatever the resolution. How do you get 256/Ham8 renders?

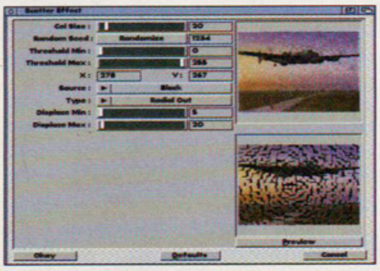
I am planning to get an IDE CD-ROM, but how long will an IDE cable go, as I would like to put it into a Midi tower? Not meaning to squeeze every penny out of my first class stamp, but could you also give the pin requirements for a Parnet lead?

Unknown
Lancashire

When you select the Rendering option from ImageFX, *you can choose the screen mode to use to display your images. Make sure you haven't got it configured to render to your Workbench screen, but to open a new screen of its own instead. Then set the number of pens to 256. If you want to use a HAM mode, you'll have to set the Render screen to be in HAM mode.*

IDE cables are really designed for internal use only (that's inside a computer, not you) and so their recommended range is only 30cm. This distance is probably less on the Amiga as its IDE interface is unbuffered. If you want to use a longer cable to house drives in an external casing, please consider getting an IDE buffer card.

In order to save my fingers from typing and risking inserting a typing mistake, you can check the pin details for the Parnet cable in the documentation which comes with the Parnet software.



With *IFX3.1* it's much easier to choose a rendering mode for your pictures.

AMIGA ON THE NET

I have an A1200 with a 540Mb hard drive and a Dynamode Superspeed 56K bps modem. I would like to go on the Internet but I wondered if I could get something like the *Internet Explorer 4*, and can I get into Paddynet (http://www.paddynet.com)?

I go on the PC Internet but it is costing me too much money (£3 per hour) and it will be cheaper for me to go on the Net at home.

Jamie Riley
Skegness

While you can't use Internet Explorer *on your Amiga, you can use programs such as* Voyager *and* AWeb *which do a similar thing. Your Amiga is more than adequate for the task – all you need is the right software.*

Rush out and buy the NetConnect v2 *pack from Active Software (01325 460116) which contains all you need. Then find a local ISP and promise to pay them about £10 a month. You'll soon be on the Internet.*

Paddynet appears to be a Web-based chat system (insulting name aside) and so any Amiga Web browser should enable you to take part in the drink-company sponsored stereotyping as much as you want.

Feedback

Thanks to Eyetech for this bit of info. I have an A1200 tower, Apollo '040/40, 18Mb RAM, Squirrel, SCSI CD-ROM, two SCSI HDs, SCSI tape streamer and IDE hard drive. After adding the Apollo, I discovered that my system would hang randomly. After contacting Eyetech, they advised me that this was probably due to my revision of motherboard (ID4) not keeping in sync with my fast system. £40 re-syncs it.

Mark Sudlow
Winsford

In answer to Graphical gripes by K. Blythe (*AF110*), K. mentioned the problem with JPEG images, saved on *Photoshop* or similar PC software. I'm resolving this problem by loading the file into some text processor which is capable of loading binary files, like *EdWordPro*. Now you should search (option FIND) sequence: y0ya_JFIF in file, and delete everything before it.

Some JPEGs have two or more JFIF appearances in the file body. The second one is the right one. Then just save the changed file. So-called progressive or animated JPEGs are viewable with *Visage*. However, if you have some stubborn pics, attach them to an email and send them to me at robertb@sublink.hr

TOO MUCH MEMORY?

I have an A1200, Viper Mk V '030/50 with 16Mb and a 2x CD. My problem is with *Myst*, which crashes every time I input a date and time into the Planetarium machine and press a button. The software failure code is

Continued overleaf ➡

DEAD DRIVE

I got a second-hand A1200 in September 1996 and fitted a Maxtor 3.5, 850Mb HD internally and an Apollo 1230 Turbo accelerator running at 50MHz fitted with 8Mb of fast RAM (now 16Mb) and an FPU but no MMU. A Squirrel was also added to enable continued use of my Reno CD.

I initially ran into power problems but solved them with a mini tower PSU from Eyetech into which I have fitted a Sony 4x CD-ROM, my second floppy drive and a 540Mb Quantum Fireball HD, which for some reason often failed to mount.

I could hear it spin up when the power was switched on but it spun down after only a second or two. When the main drive startup-sequence mounted the DOS drivers it span up but died again. I've put up with this for some time as it was only used as a backup system and it always boots from the Squirrel floppy boot disk I prepared.

However, after failing to get one at the World of Amiga event I visited Tottenham Court Road and acquired an internal SCSI Zip drive, also fitted in the tower, and since then it has been increasingly difficult to get the SCSI HD to mount.

Unit numbers are: CD – 0, Zip – 2, HD – 5. The CD is the last unit on the ribbon cable and the only one terminated. Any ideas?

I would also like to use the hard drive activity LED on the tower front but while there is a lead marked HD LED there doesn't seem to be anywhere on the drive to connect it – or is there? One other irritating problem is the clock.

Before I solved the power problem, the clock battery had run down and it now frequently loses date and time, reverting to the date I formatted the internal drive. When it does maintain the date it never keeps the time. Would a new battery solve this or do I have to replace both clock and battery?

Rab Dingwall
Rainham

I would really put the malfunctioning SCSI hard drive out to pasture as it seems to be past its best.

As soon as a hard drive starts to show signs of failure, it's usually not worth persevering as you could lose a lot of work. You have terminated the SCSI chain correctly, and if the cabling is a-ok then you've done all you can. The only thing I'd suggest is swapping the order of the drives (and applying the termination where necessary) as this can sometimes make a difference. SCSI is a fickle beast.

It is possible to use the LED light from the hard drive, if you're still willing to put up with it that is, because there should be two pins on the drive. Unfortunately, the pins will look exactly like standard jumper pins, so you might have trouble trying to find them. The time problem should be resolved by a new battery. Change it as soon as possible in case it leaks all over your Amiga.

#8000000B. Using Identify, I get the report: Type – Deadend, Subsystem – CPU, General fault Line 1111 Emulator error. Can you translate?

I have found a patch, *Myst 1.1*, which the readme says corrects some bugs but this doesn't help. I have removed all programs from WB Startup. Is this a software fault, which I would have thought unlikely with a CD? Please help as I cannot get the ship up!

Finally, I have just upgraded my memory SIMM from 8Mb to 16Mb but the WB screen says 16,200,576 other memory. How is it possible for there to be more than 16Mb on a 16Mb SIMM?

Phil Egerton
Dukinfield



Have you *Myst* the fact that your copy of the game might need a different SetPatch? Ho ho.

I'd swear that was an FPU error, but it's more likely that you aren't running the version of SetPatch that clickBOOM recommend for Myst. We have included both Setpatch 40.16 (in the c: dir) and 43.6b (in the -In_the_mag-/Workbench dir) on this CD. All you need do is replace the one in your C: dir.

Now about that 16Mb SIMM. You forget we live in an age of binary numbers and although it's 16Mb, that actually means 16 times 1,024 times 1,024 bytes of data, which is 16,777216 bytes. Your Amiga's OS takes up some, which leaves 16,200,576 for you.

10 things to do when: You want better graphics

1. Use a monitor rather than an old television set. Monitors are designed to show crisp text and they make a marked improvement.

2. If you have to use a telly, don't use the UHF or composite video signals. If possible, use your TV with a SCART plug wired for red, green and blue signals. This also makes an improvement to image quality.

3. Obviously the best quality images are obtained using a graphics card and a gigantic SVGA monitor, but save your pennies because neither one is cheap.

4. To get images onto your Amiga takes extra hardware, and there several ways of doing it. Firstly, you can buy a scanner (preferably a flatbed scanner) and scan photographs into your favourite art program.

5. Secondly, you can use a video-digitiser to grab stills from the output of a video recorder or camcorder.

6. How about a digital camera? There's a growing number of support cameras, including one from Amiga hardware favourites Power Computing.

7. Finally, don't forget you can draw your own pictures. Forget using the mouse though, and use a graphics tablet instead. They let you draw using a familiar pen instrument which is much easier to use.

8. Your choice of software is important too. If you want to concentrate on high quality image processing tools then *ImageFX* really is the bee's knees.

9. For drawing, *Art Effect* is an excellent program, borrowing many features from the well-known *Photoshop* software.

10. If you're looking for a good in-between then don't forget *Personal Paint*. Easy to use and yet powerful, few programs make the most of the Amiga like good old *PPaint*.

ZIPPY

1 Does the Zip Plus have built-in termination?

2 Does termination of a SCSI chain have to be the last physical device (the one furthest from the controller) or the device with the highest ID?

3 My Squirrel transfers data at about 1.2 to 1.4Mb per second but takes up 100% CPU time (AIBB). Is this because it is not DMA (Direct Memory Access)? If I fit a SCSI interface to my Apollo will this hog less CPU time?

4 A suggestion for the CD-ROM – I downloaded a *Quake* port for the Amiga (100k) from a BBS. Then I found out that I needed the PC Shareware version as well. This was around 8Mb and I didn't fancy spending two hours online.

5 I read somewhere, many moons ago, that the reset button on towers/cases should be soldered to the Amiga motherboard and used as a "hands off" soft reboot. Any advice about this?

6 Finally, do you have any idea if there is a patch available that will allow *Worms: The Director's Cut* to access the music on the CDDA CD-ROM?

Mark Sudlow
Winsford



The rather impressive, Format Gold-winning Zip Plus (reviewed in issue 107, 92%). It's even got a switch on the back for simple termination.

1 Yes. There's a switch at the back to switch the termination on and off.

2 The termination must be the last device in the chain – the device numbers have nothing to do with it. Termination is required to stop reflections and data corruption of the signals winging their way along the cable. Applying termination to a device not at the end of the chain will only cause problems.

3 If a device uses DMA then yes, it should use dramatically less processing time. If the Apollo interface makes use of DMA then it should run faster.

THE TWO R'S

I have a very annoying problem with an A1200. It has a 2Gb hard disk, 6Mb RAM, 12x CD-ROM and an extra floppy drive.

The problem is when we are doing anything on it (games, word processing, etc) as it will suddenly, without warning, reset itself for no reason. Sometimes it will come up with software failure, but very rarely. I have never found any pattern to this at all. Sometimes if it's left to itself it resets then as well. When it resets it starts to boot from the hard drive, but resets again then tries to boot again and hangs again. It keeps doing this until we turn it off for about a minute, then it works normally. Workbench 3.0 has never been installed properly as I did it by hand. Could this be the trouble? Can you help?

Nick Lockyear
Chichester

I'm afraid your Amiga is suffering what we call "Random Resets". These are usually hardware related, especially if you don't have to be doing anything for the system to crash. The first thing to check is the lead from the PSU into the Amiga. Sometimes the plug appears to be fitted properly when it's not, and the slightly knock can cause a bad connection and a crash.

The second thing to watch out for is the PSU itself. As you have really added a lot of kit to the A1200, there's a very good chance you are overloading the PSU. All those extra drives take power, and the poor A1200 PSU was really only designed to cope with the basic system, some extra memory and a low-powered 2.5" disk drive. I'd strongly recommend you invest in a new, bigger power supply.

Lastly, try using the Amiga with no hardware present at all. Take out everything: hard drive, memory, extra floppy – the lot. Now leave it alone and see if it crashes. If it does then it's possible the A1200 itself has a problem. One of the chips on the motherboard could be failing or overheating. If so, it's time for a visit to the repair shop. If it works then it's definitely a power problem.

4 Putting copyrighted software on the CD-ROM cannot be done without the owner's consent, I'm afraid. Why not contact Weird Science (0116 246 3800) and buy it?

5 It's not essential that the buttons should be wired to anything. Personally, I'd rather not do it as I prefer the warm-reset, three-fingered salute approach. I can't help pressing buttons. Especially ones which say things like "Danger: Do Not Press This Button".

6 Sorry, I've really got no idea. Perhaps one of our readers knows the answer.

POWER DOWN

What I would like to know is if it is possible to attach a switch onto an Amiga somewhere to turn the HD off when it's not in use? Is this possible? If not, could you suggest anything else as for some games I don't need the HD switched on.

Tony Fowler
Cambridge

Sorry, but trying to mechanically disconnect the hard drive from a running Amiga is fraught with danger and is not recommended.

Having the hard drive switched on does little more than make a noise, so there's no harm in having it running.

There may be some hacks out there which can trigger the hard drive's automatic low power mode, but the Amiga isn't designed to support this kind of operation and I certainly wouldn't recommended it.

ZORRO PUZZLE

I have a few questions about the Zorro 2 adaptor article in the January 1998 issue. Firstly, the system in question is my old A500 tower with a Viper 520CD (68030/33, 8Mb fast RAM, 68882 FPU), 200Mb 3.5" IDE hard drive and 8x IDE CD-ROM, Kickstart version 39.106, WB version 39.29, 1Mb chip RAM and ECS.

In the above-mentioned article the text mentions that the DOE line is wired from pins 5 to 93 on the Zorro connector. However, when studying the diagram this is shown to be wired from pins 3 to 93. As I have no technical data on Zorro 2, please could you clarify which is correct, as I would hate it if something were to go bang!

Secondly, the adaptor that I have created is on a PCB so I can expand the amount of Zorro connectors in the future. In the text you say that the configuration lines should be wired in series between the slots, so pin 11 is connected to pin 12 and so on. Does this mean I connect all the pins straight through and add these lines later, ie. pin 11 on the first slot to pins 11 and 12 on the second?

Finally, the main reason for constructing this adaptor is to add a graphics card. However, the Viper 520 does not allow cards to use DMA, such as my old GVP Impact Series II controller.

Do any graphics cards use DMA and, if so, could you list any I should avoid? I would also appreciate any advice you could offer on any cheap graphics cards that can retarget standard Amiga screens using software such as *Modepro*.

Garry Childs
Colchester

Well spotted! The text is right, and the right-most wire in Figure 1 should go to pin 5 (+5V) rather than pin 3 (GND) to switch the DOE enable line correctly. It's not actually an issue in most cases as there are rarely any buffers to be switched, unless you've already got a full Zorro adaptor, but the clarification is nonetheless appreciated.

The use of a PCB is very wise, especially as you're planning to fit more than one connector. No, you should not link pins 11 and 12 on the second slot, or any other, as one is an output and one's an input, so if you link them the board will talk to itself and nothing else. The pins are connected in a chain, so pin 11 goes to pin 12 on the next slot and so on. No other connections should be made to the A500 apart from pin 12 of the first slot, which gets the initial CONFIG_IN signal from the A500.

Autoconfiguration proceeds as follows: The Amiga asserts Config on the 86-way connector, pin 12, telling the first board to configure itself. That board's Config-Out signal (11) is not asserted until the board is configured and it's time for the next board to set itself up. At this point the first board asserts Config-Out on its pin 11 and your PCB carries this to pin 12 on the next board, and so on to the end of the chain, when all boards are configured. You could connect an LED to the last pin 11 if you wanted to know that the message had got all the way, but that's hardly necessary as autoconfig is very quick and the machine will come to life as soon as it's done anyway.

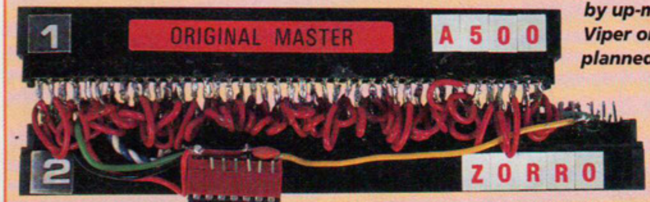
The point to note is that pin 12 tells a board to wake up and configure itself. Pin 11 signals that this has been done so that the next board can wake up. The A500 was not designed for multiple boards so it's a matter of luck, and signal timing, whether it works first time. If you find one board configures over and over without passing on the signal, some users recommend installing faster buffers on the motherboard (74F series instead of 74LS). It really depends on the cards themselves.

I know people who've used a 32-bit CPU, Prelude and MFC3 together, and graphics cards with hard disk controllers, but your mileage may vary. One MFC I tried kept re-configuring, while another, on the office Amiga, worked fine. The result depends on the speed and noise immunity of the parts on your system. A PCB, faster buffers and good power will help, but ultimately the only way to be sure what's going on is to check out the signals with an oscilloscope.

As regards the choice of graphics cards, I suggest Picasso 2+, because that's what I've used, but other cards compatible with Zorro 2 should work fine. These boards do not perform DMA – they just sit in the memory map and wait for the processor at the other end of the Zorro bus to stuff things into their willing memory and control registers. Most are based on PC chips, and ISA cards are too dumb to originate DMA anyway.

In general, DMA (bus mastering) is only used by up-market disk controllers, like your Viper or Commodore's 2091, so your planned set-up should be fine.

Simon Goodwin.



A Zorro bus. Now, can you spot which wire is connected wrongly?

IF YOU HAVE A QUERY...

At *Amiga Format* we aim to answer as many questions as possible. Unlike some magazines, we don't just concentrate on our areas of expertise – we take on all your problems (as long as an Amiga is involved).



John Kennedy.

Here are a few tips on sending in questions:

- **Be concise.**
- **Detail the problem as best as you can.**
- **Describe the events that caused the problem.**
- **Give full details of your equipment.**
- **Make sure your question is relevant and wouldn't be more easily solved by contacting the dealer from whom you bought the goods.**

Bear these points in mind and fill in, photocopy, or copy the form below as best you can. Unfortunately we cannot reply personally.

Send your letters to Workbench, *Amiga Format*, 30 Monmouth Street, Bath, Avon BA1 2BW.

Your Amiga:

○ A500 ○ A500 Plus ○ A600
○ A1000 ○ A1200 ○ A1500
○ A2000 ○ A3000 ○ A4000

Kickstart version

○ 1.2 ○ 1.3 ○ 2.x ○ 3.x

Hard Disk: .... Mb

Manufacturer: ....

Extra RAM fitted – type, size, (Mb) and manufacturer:

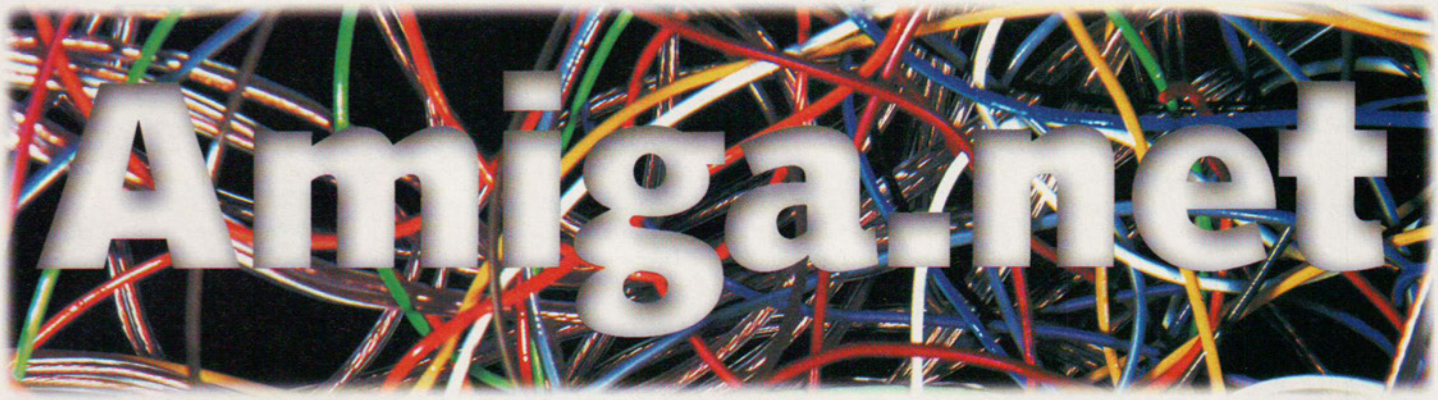
....

....

Details of other hardware:

....

....



Amiga.net

Dave Cusick comes over all theoretical about online communities…

CONTACT POINT

I can be reached with comments, suggestions and feedback at dave@dcus.demon.co.uk, or via my Web site at http://www.dcus.demon.co.uk/

Ask most online computer buffs what they like about the Internet and their answer will probably be along the lines of: "It allows you access to all sorts of information and lots of free software."

But perhaps, just perhaps, if pressed for something extra, they might allude to feeling a sense of community online. They might not – after all, many Net users never venture beyond the Web and the opportunities for social interaction are still pretty limited there.

A long-term Internet user could well confess to feeling like they belong to something just a little bit special, though. I certainly would. There are parts of the Net in which a real sense of community exists. Perhaps the most obvious places are the Internet Relay Chat networks, such as Undernet, Efnet and Amiganet (no relation).

IRC regulars hang around in the same few channels nearly all the time, fostering relationships with those around them. These relationships are, of course, nothing like real-life relationships. IRCers cannot see one another and so they do not have body language or even vocal inflections to help give meaning and context to phrases. Interaction on IRC is by the written word alone, and often by a shorthand form of the written word at that. You can chat to someone on IRC for a very long time and yet learn very little about them. This characteristic of online relationships is beautifully sent up by Melanie McGrath in her book *Hard, Soft & Wet: The Digital Generation Comes of Age*, which I'd recommended.

Despite the peculiar nature of IRC relationships, there is still a strong sense of community within channels, a fact which anyone who has found themselves pouring out their troubles to someone they've never met in real life will appreciate immediately.

If you take a step back from an IRC session and just watch what goes on, it's incredible observing the way in which members of the community rally around one another and object to the actions of those who break the rules that the community has established.

In an interesting thesis entitled *Electropolis: Communication and Community on Internet Relay Chat*, written as long ago as 1991, Australian Elizabeth Reid explores in some detail the particular characteristics of IRC which galvanise its users into such strong communities. One factor she

> "Despite the peculiar nature of IRC relationships, there is still a strong sense of community within channels…"

PEOPLE POWER

On May 13th, Opera Software announced that they intended to produce an Amiga version of their Web browser, to be available by Christmas 1998. The announcement represents the culmination of a concerted effort by the Amiga online community to persuade Opera Software, whose intention has always been to produce versions of their software for as wide a range of platforms as possible, that there would be sufficient interest in Amiga Opera to make the project worthwhile. Opera's Project Magic, which encouraged users of non-Wintel platforms to pledge their support for potential conversions, attracted thousands of responses from Amiga netizens. As a consequence, Opera Software enlisted UK company RamJam Consultants to produce a port of the ultra-efficient browser.

Unfortunately, at the time of writing things aren't going quite as well on some other campaign fronts. Brian Gilbert's ongoing crusade to bring *ICQ* to the Amiga, on which this column has focused more than once in the past, seems to have hit a brick wall, with *ICQ* producers Mirabilis stating that no third parties will be allowed access to their source code. Since Mirabilis still have no plans to produce *AmigaICQ* themselves, it seems as though we'll have to make do with *Java ICQ* – when a functional JVM eventually appears for the Amiga. Elsewhere, the campaign continues for an Amiga version of RealNetworks' *Real Player* software, which has become something of a standard for online audio and video streaming. RealNetworks have not ruled out an Amiga version of the software, but for the time being they have no plans to produce one either. If you'd like to register your support for the campaign, pay a visit to the site soon.

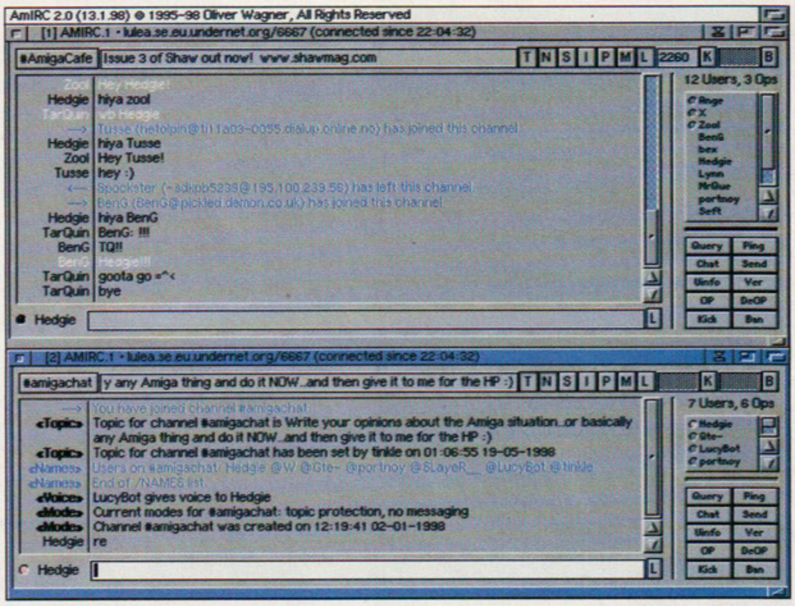


The Opera browser running on Windows. With the installation taking up less than 2.5Mb of hard drive space and the distribution archive weighing in at just 1.1Mb, it's darned efficient by PC standards and should work well on the Amiga.

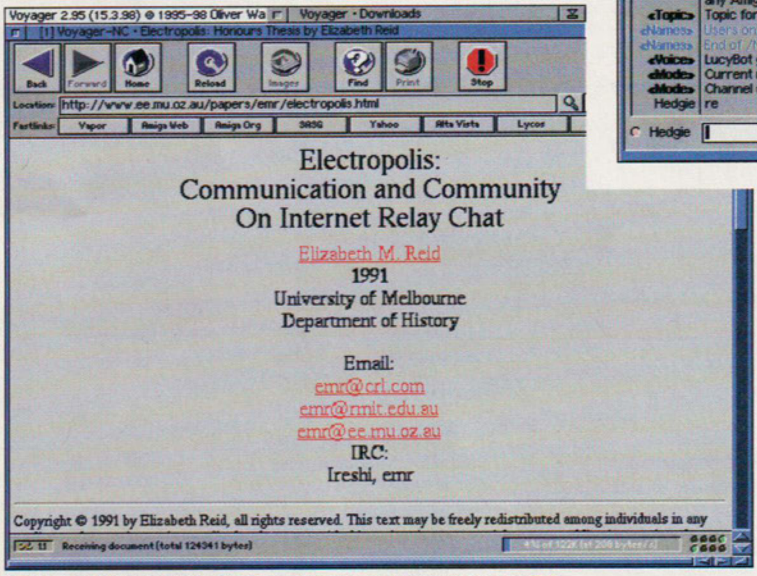
SITES OF INTEREST

ELECTROPOLIS:
Communication and Community on Internet Relay Chat: http://www.ee.mu.oz.au/papers/emr/electropolis.html
Esther Dyson's *Release 2.0* Site: http://www.release2-0.com/
The Well: http://www.well.org/
Opera Software: http://www.operasoftware.com/
Amiga RA Campaign: http://www.horus.ch/AmigaRA/

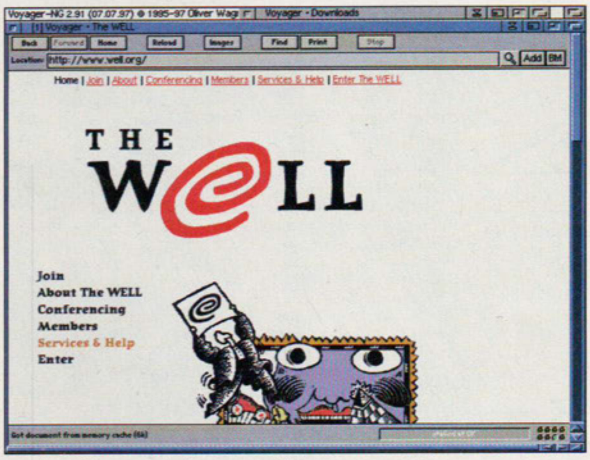
considers to be of vital importance is the "shared web of verbal and textual significances that are substitutes for, and yet distinct from, the shared networks of meaning in the wider community".



IRC channels are the most obvious example of online communities.



Elizabeth Reid's thesis on *Communication and Communities on IRC* makes for absorbing reading.



The San Francisco-based WELL is one of the most famous and long-running online communities.

In other words, because all users have to adapt to the text-only nature of IRC, they have something in common from the word go. If you choose to chat in an Amiga-related channel, of course, you've got another thing in common!

Reid's thesis goes on to talk about the nature of IRC communities. Because users are often spread across the world, national and cultural differences necessarily tend to be broken down. As Esther Dyson notes in a fascinating chapter on communities in her book *Release 2.0*, the Internet "allows the formation of communities independent of geography. People need only share interests or goals and find one another".

Of course, IRC isn't the only part of the Net in which a genuine sense of community exists. For the same reasons, email mailing lists and discussion groups also foster this sense amongst their regulars, as *New Yorker* columnist John Seabrook relates in *Deeper*, the entertaining story of his first two years online. Reading the accounts of his early experiences of online discussion on San Francisco's WELL, every Net user will find themselves identifying with his emotions.

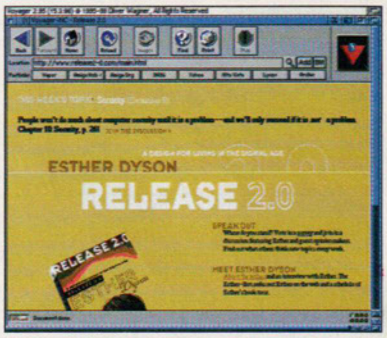
Being a newbie in an online discussion is identical to being a stranger entering a real-life community for the first time. There are those, of course, who believe that the entire online experience has a homogenising effect, destroying culture and identity.

It has the potential to do this, certainly, but so do imported films and television programmes; so does so-called popular culture with its bland minor celebrities; and so do the manufactured musical groups who proliferate in singles charts the world over. In contrast with all those things, the Internet has the potential to actually get people communicating with one another.

Discounting for our purposes conversations about Geri Spice's latest frock down at the local drinking hole, few people would honestly claim that these other elements of modern life genuinely encourage people to communicate with each other.

Commentators who talk, starry-eyed, about a Utopian future where everyone happily co-exists in an online alternative world that complements the real world are being a little over-optimistic, but some of what they say is correct.

The Internet has given new strength to notional real-world communities (see the People Power box for an example of how) and has facilitated the creation of many new communities, and it will continue to do so in years to come.



You can read extracts from Esther Dyson's *Release 2.0* book on the dedicated Web site. (If you're after the UK edition of the book, it's got a green cover rather than the US yellow one shown on the site.)

HIGHLY READABLE BOOKS OF INTEREST

ESTHER DYSON – *Release 2.0* (1997)
MELANIE MCGRATH – *Hard, Soft & Wet: The Digital Generation Comes Of Age* (1998)
JOHN SEABROOK – *Deeper: A Two-Year Odyssey In Cyberspace* (1997)

HEAVIER THEORETICAL BOOKS OF INTEREST

MANUEL CASTELLS – *The Rise of the Network Society* (Vol 1. of *The Information Age: Economy, Society and Culture*)
SMITH & KOLLOCK – *Communities in Cyberspace* (to be published in September 1998)

Hot Summer Sale!

Like for like, we will price match any items in stock

Amiga Mice

PC Serial AlfaTrack Trackball for use in Workbench ... *£20.00
PC Serial AlfaCrystal Crystal Trackball for use in Workbench ... *£25.00
MouseIT adapter and Software ... £9.00
* For Amiga MouseIT adapter and Software supplied



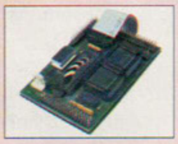
Ram Boards

RAM CARDS A1200

A1200 with clock and 4Mb *(not upgradeable)* ... £40.00
A1200 with clock 33MHz FPU and 4Mb ... £50.00
A1200 with clock and 8Mb ... £55.00
A1200 with clock, 33MHz FPU and 8Mb ... £65.00
33MHz plcc FPU inc. Crystal ... £15.00
40MHz PGA FPU for Blizzard ... £25.00

Controllers

Catweasel MKII for A1200 – allows you to connect High Density Disk Drive fits on to clock adapter leaving IDE interface free for our 4 way buffered interface ... £49.00
Buddha IDE Controller for A1500/2000/4000 ... £49.00
Catweasel plus Buddha for A1500/2000/4000 ... £69.00
Oktagon 2008/4008 SCSI Controller ... £89.00
To clear: Catweasel MKI for A4000 Only ... £40.00



New GI-Quatro Buffered Interface for A1200 '98 with full software

Buffered interface for A1200 with full IDEFIX'97 software allows you to connect 4 ATAPI devices to A1200 Comes with two 40 pin IDE cables and one 44 pin IDE cable ... **£39.95**
Buffered Interface only ... £24.95

"Amiga Health Warning" Fear not with our Buffered Interface

AlfaQuatro Interface

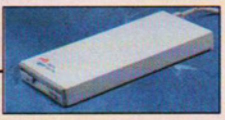
Specially made hardware and software. Includes IDEFix '97 software

Allows 4 ATAPI devices, ie, 2 IDE hard disk & 2 IDE CD Rom to Amiga 4000 internal IDE controller ... £39.95
Interface only ... £24.95

Joysticks & Joypads

Amiga Joysticks ... £9.95
Amiga Joypads ... £9.95
CD 32 Joypad ... £14.00
Analogue Alfa Alien Joystick with analogue joystick adapter ... £14.95
Programmable Arcade Style Joystick ... £15.00

Floppy Drives



External Floppy Drive for all Amigas ... £39.95
Internal Floppy Drive A500/500+ ... £28.00
Internal Floppy Drive A600/1200 ... £28.00
Internal Floppy Drive A1500/2000 (DF0 only) ... £30.00
Internal Floppy Drive for Tower user with face plate ... £30.00
New interface: use a HDD drive as Catweasel drive and/or as an internal drive ... £15.00

Best pricing on CD ROM Drives & Hard Drives.

We can supply CD ROM solutions for ALL Amigas from A1500 to A4000. Four top AGA titles free: Nick Faldo's Championship Golf; Syndicate; Pinball Fantasies & The Chaos Engine.

All our External IDE CD ROM Drives have built in power supplies (they do not draw power from your Amiga)

GI-Quatro buffered interface allows you to connect 2.5" or 3.5" drives with full registered version software (not a demo)

All CD ROM drives have play CD facility.



	External A600/A1200	Internal A1500/A2000	Internal A4000	Bare mechanism
16 Speed CD ROM for	£120.00	£95.00	£89.00	£49.00
24 Speed CD ROM for	£130.00	£105.00	£99.00	£59.00

A1500/A2000 supplied with IDE controller & software. A4000 supplied with AlfaQuatro interface & Full IDEFIX software.
Bare CD-ROM suitable for internal fitting requires IDE interface and software.

New Products

External Scandoubler with TV tuner

"A brilliant piece of equipment" 9/3/98 Nicholas Lamburn
"Want a VGA or Multiscan monitor, but want to watch tv on it too? Ben Vost gets best of both worlds with this rather oddly named box" AF Jan 1998



TV Amazing external Scandoubler with TV tuner, SVHS input, composite input and VGA input/output with infrared controller ... £89.00

Accelerators for Amiga A1500/2000

2030 Turbo - 25MHz with SCSI option ... from £99.00
2030 Turbo - 50MHz with SCSI option ... £159.00
SCSI Hard Drive 4.3Gig ... £259.00 Best Price
SCSI Hard Drive 2.1Gig ... £189.00
Requires SCSI Controller
Oktagon SCSI Controller plus 2.1Gig ... £250.00

IDE Hard Drives for A1500/2000

Hard Drives plus Buddha IDE Controller
2.1 Gig ... £159.00* *Starbuy
Hard Drives plus Buddha IDE Controller 4.3 Gig ... £215.00* *Starbuy

IDE 2.5" Hard Drives for A600/1200

All 2.5" hard drives come formatted and installed with Workbench, including IDE, cable, screws, software and instructions. *(please check for availability)*

170Mb ... £59.00 Starbuy
340Mb ... £79.00 Starbuy
510Mb ... £89.00 Starbuy
810Mb ... £89.00 Starbuy
1.0Gig ... £139.00 Starbuy

Star Buy

IDE 3.5" Hard Drives for A1200/4000

2.1Gig	£115.00	4.3Gig	£155.00
3.2Gig	£139.00	*5.0Gig	£219.99

We will partition and format Hard drives and install Workbench. *5.0Gig will fit and work on Amiga Computers contrary to warnings given
(Amiga Format Gold Award winner August 1997)
(Amiga Format Gold Award for 3.8Gig January 1998)

Memory

4Mb Simms	£10.00	8Mb Simms	£20.00
16Mb Simms	£30.00	32Mb Simms	£60.00

Zip Rams *(suitable for A3000, Alfapower, At-Bus 2008 & Oktagons)* every 2Mb ... £40.00

Accelerator for A1200

1230-40MHz & FPU with 8Mb plus MMU ... £99.00
1240-25MHz & FPU with 8Mb ... £130.00
1240-40MHz with MMU & FPU with 16Mb ... £200.00
1260-66MHz with MMU & FPU with 16Mb ... £340.00

Miscellaneous Products

Philips monitor to Amiga cable ... £6.00
Printer cable ... £5.00
PC Keyboard Adapter ... £19.95
SCSI case with PSU ... £49.00
Boot selector switch for A500/2000 ... £10.00
44pin 3 connector cable ... £8.00
44pin 2 connector cable ... £5.00
40pin 3 connector cable 80cm for CD-ROM & 3.5" drive ... £5.00
AlfaQuatro 3x40pin Interface & IDE cables ... £20.00
DD floppy disks (50) with disk boxes *including multicoloured disk labels* ... £13.00
DD floppy disks (100) with disk boxes *including multicoloured disk labels* ... £25.00
3.5" Hard Drive Kit for A600/1200 *+ Install software* ... £15.00
Diskbox to hold 10 discs ... £1.00
Animal Jungle design and Dinosaur design ... £2.00
2 in 1 Scanner/Mouse Pad *Can be used as a memo pad* ... £3.00
VGA Adaptor ... £10.00
Amiga Power Supply 4.5 amp ... £15.00
Plain Wristrest ... £2.00
GI-Quatro buffered interface without cables or software ... £25.00
A500+ 1Mb ram card ... £20.00
CDROM Drives (Bare) For internal fitting.
Requires interface and software
IDE 8speed ... £39.00
IDE 16speed ... £49.00
IDE 24speed ... £59.00
Chaos pack AGA: 4 great games **(on disks)** (The Chaos Engine, Syndicate, Pinball Fantasies, and Nick Faldos Golf). All Amiga Format Gold winners ... £5.00
Audio Cables for CD ROM's
Stereo jack (3.5mm) plug to 2 x RCA phono plugs 1.2 metre long ... £5.00
Audio mixer 2 x RCA phono plugs to 2 x RCA phono plugs/sockets 1.8 metre long ... £6.00
2x RCA phono plugs to 2x RCA phono plugs 1.2 metre long ... £5.00
Multipass OCR Software
suitable for all scanners and direct scanning support for hand scanners by Migraph, Golden Image, AlfaData and Power ... £10.00
Highpower power box PSU ... £49.00
Turbo Print Software ... £39.00
Just in:
4-Way 4 player Adapter allows up to 4 joysticks connects to Parallel port ... £5.00
Scart Cable connect Amiga to any TV with Scart connection ... £5.00
Philips Scart (CM8833 MKI monitor) to Amiga cable ... £8.00
Philips (8833 MKII monitor) to Amiga cable ... £8.00

All prices include VAT. Please add £3.50 P&P for items under £30.00, £5.00 for items over £30.00, £8.00 P&P for CD ROM Drives & Hard Drives, £10.00 courier for next day. Tax Free Export Orders Welcome.

Golden Image accepts Mastercard, Visa, Switch, Cheques & Postal Orders. E&OE. Prices subject to change without notice. Some items limited in stock please check for availability. Specifications subject to change without notice.

Golden Image (UK) Ltd

Unit 65, Hallmark Trading Estate, Fourth Way, Wembley, Middx HA9 0LB
Sales Hotline No: 0181 900 9291 Fax: 0181 900 9281
http://www.Goldenimage.co.uk Talking Pages: 0800 600900
Our standard terms and conditions apply – available on request. We do not supply on a trial basis.

CREATIVE

The indispensable guide to getting the most out of your Amiga



Our recent survey revealed that more Amiga owners than ever count a hard drive amongst their various peripherals. It's hardly surprising, as drives have got so cheap and the Amiga is difficult to use properly without one. But how many of those people are using their drives ineffectively or are having strange problems with them they don't understand?

Quite a few we suspect, which is why Simon Goodwin is making it his special mission to enlighten you all.

In other tutorials, Ash Thomas teaches you how to draw, I waffle on for a bit about displaying graphics and John Kennedy has finally got around to opening a window. Have fun!

Nick Veitch

SEND IT IN!

WE NEED YOUR INPUT.

Is there something that you would like to see covered in one of the current tutorial series? Why not send your suggestion to us at the magazine. Here are some things you might like to think about:

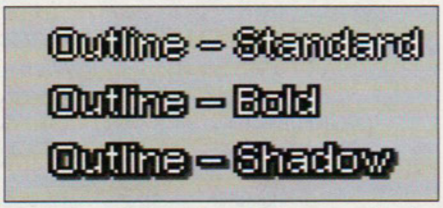
PROGRAMMING
Is there a language you can't get to grips with? Or maybe you want to know how to do a specific thing in C or ARexx? You might never find the answer unless you write in and tell us about it!

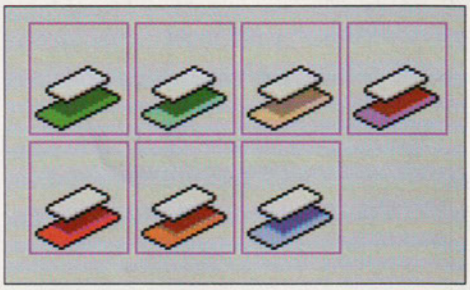
UNDER THE BONNET
Unsure of how how your Amiga really works. Not sure if you are getting the best from your hardware - write to us.

GRAPHICS
Is there something you desperately want to be able to draw? Drop us a line! Contact us at:

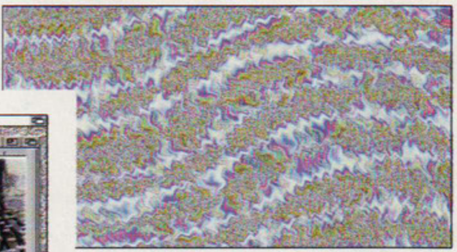
AF Creative • 30 Monmouth Street
Bath • Somerset BA1 2BW
Or email: amformat@futurenet.co.uk
putting "Creative" in the subject line.





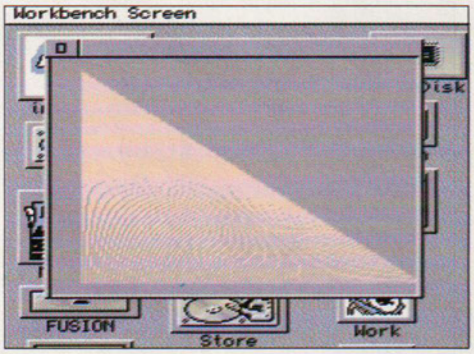


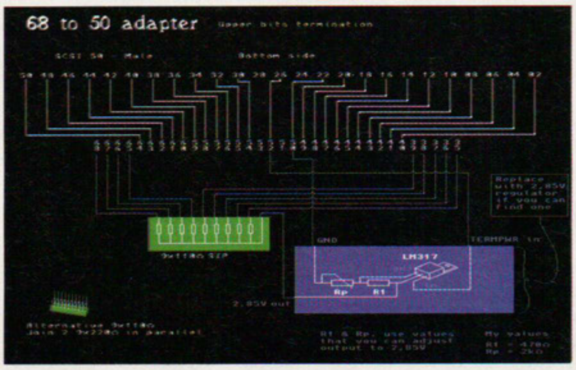
Making great icons can be a simple matter of having great templates.

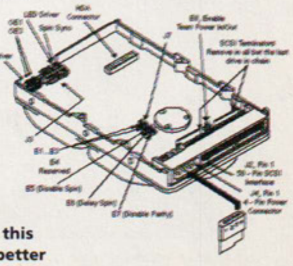


It could be some strange fractals or Colin sunning himself – get the best out of your artwork by knowing how to show it.









If you want to know what all this means, you'd better read the tutorial.

Amiga Icons

Now that you're ready to draw your own icons, Ash Thomas gives you some useful hints and tips.

AFCD29:-In_the_mag-/Icons

ON THIS MONTH'S CD

Contents

Missed a tutorial in this series? Call our back issue hotline on 01458 271102 or see page 51.

Although I should probably save this for Tutorial 6, I've just got back from the World of Amiga show where I was working with Greg Perry on the GPSoft stall, showing off the latest version of Directory Opus.

I had brought my Amiga to the show, running an 800x600 PicassoIV screen with 16,000 colours and had it set up in its full glory, with banks of well-drawn icons, backdrops and some great patterns. Many people came over to see the colourful Workbench and ended up seeing how good Opus was. It shows just how important appearances are, even though it's ultimately what is below the surface that counts.

It's like chatting someone up in the pub – you go over to them from first appearances and only then do you start to find out their personality. I'm going to be showing you some techniques to create some well-drawn icons to improve the look of your Workbench.

CYLINDERS

Many icons have cylindrical shapes in the picture; these cylinders are rounded in shape, and so must reflect light and have proper shading. Cylinders can be used for handles of paintbrushes, magnifying glasses and pens.

The cylinder needs to have definition to separate it from the background so a black (or dark) outline is essential. Once you have drawn the basic shape you need to decide on the position of the light source.

The tube will be shaded through a number of darkening colours, with the lightest shade being where the light has caught the object. To look realistic, I think the best position is slightly off-centre. This also reduces the number of colours needed for the shading, which is essential for a *MWB* tube. The place where the light catches the image is often best drawn in bright white, though this does depend on how reflective the surface of the object is.

Once you've drawn the outline and the lightest area, darker lines going out from the light source will make the cylinder look very 3D.

> "It shows just how important appearances are, even though it's ultimately what is below the surface that counts."

DROP SHADOWS

Shadows are mainly used with *NewIcons* as they have a platform underneath each icon, and so a drop shadow makes the object appear to have more depth.

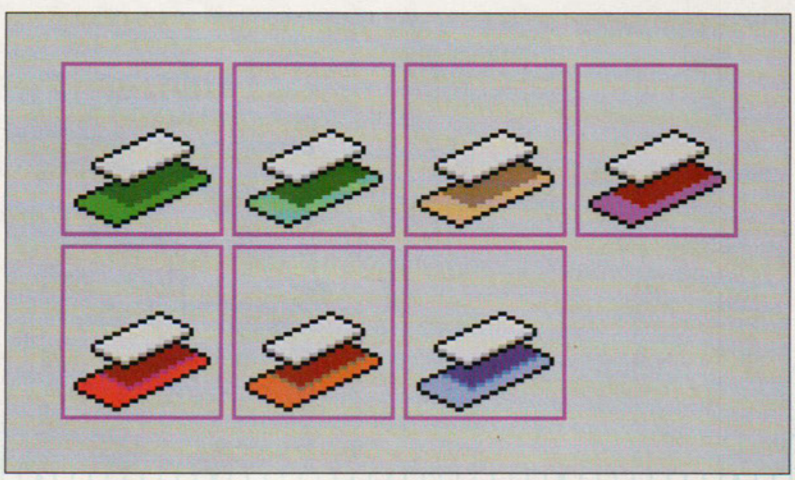
Drawing the shadow can be quite tricky as the light source is always from a definite point. The best description of where this 'virtual torch' is located would be directly above the icon, but pulled back towards the screen and moved left slightly. This is tricky to imagine, but if you look at some of Phil's icons you can start to see where the shadow should be placed.

Drawing a shadow for flat objects is easy and you can use *PPaint*'s tools to get a perfect result. Cut out the image using the brush and then protect all the colours apart from the platform colour. Select the shadow colour and hit F2, turning the brush into a shadow, then draw the brush roughly one pixel to the right and three to four pixels down from its original position. If the shadow doesn't look quite right, edit it manually until it looks like it fits the object.

Doing a shadow for a tall object can be hard and it is best to just draw the shadow by hand. You will have to keep



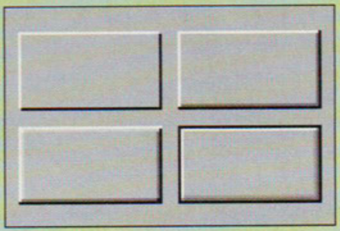
Four examples of cylinders, showing how often they get used.



Seven coloured platforms and their shadows. This is also on the CD so you can see the intermediate colour.

BUTTON STYLE

If you decide to opt for a completely new style of your own (be it in the *MagicWorkbench*, *NewIcon* or your own colour scheme) you could have your own button system. Here are some examples. The first is the *MWB*-style, with a simple raised look and a light grey in the corners. The second is the style (ahem) Windows95 uses, a vast improvement on the old Windows3.11 'clunky' button style. The third has a double border, which gives a greater illusion of depth, and the last one has a black outline that makes the button stand out more.



imagining the way the light hits the object and projects a shadow onto the platform. This is a little tricky but with experience you'll find it easy to do.

There are darker colours which can be used for the shadows and you can make some interesting combinations by experimenting. An intermediate colour can be used to outline the shadow which gives it a hazy effect so it looks less solid. There are some examples on the CD.

EIGHT-COLOUR TECHNIQUES

If you're drawing a *MWB* icon, the object you draw will go onto a gradient background. The same goes for both program icons and drawer icons – they share a grey backdrop. This can cause the object to blend in with the background, rather than standing out.

To avoid this, a subtle outlining can be done to make the object appear to be more separated from the background. The outlining can be done using the opposite colour to the object, so for the dark brush on the Dock-Brushes drawer the author has used a light grey around the brush head and the same technique has been used for the utilities drawer.

When you draw the selected *MWB* icon, you don't have to do very much as many of the icons just move one pixel down and one to the right.

Drawer icons are slightly different as they range from 0 to one pixels right and one to three pixels down. This is dependent on the location of the image on the drawer – if it's towards the centre of the drawer it won't move as much. The best way to decide which is right is to try them and see which looks best.



You can still create a colour gradient with only eight colours. Note how the darker part appears to be further away.

Remember that your eye is always a better judge than counting pixels, even if it doesn't follow these "rules". Always do what looks right to the eye, even if it doesn't look right when zoomed in – after all, it won't be seen zoomed in!

A few of the selected icons animate as well as being 'pushed down'. This catches the eye much more than a simple button effect and will make your icon look more professional.

TEXT

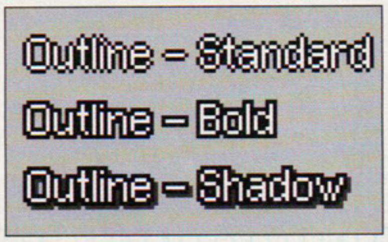
As a rule, you should do your best to avoid using text on an icon as the text underneath the icon should suffice. An icon is supposed to present a graphical representation of the object and so text defeats the point. However, sometimes it is necessary and can improve the icon. In this case you can still use art skills to improve the text on the icon because you can make it look better than just a plain topaz font. I would recommend XHelvetica for the font, with outlining to make it stand out.

> **As a rule, you should do your best to avoid using text on an icon as the text underneath the icon should suffice.**



Here are some fills with the light source in different places. There is also a blurred drop shadow to make the text stand out more.

A standard outlining is where you have cut the brush out, hit f2 to select an outlining colour and pasted the brush onto four compass points, followed by once in the centre with the font colour. To make the outline heavier you can draw it on all eight compass points. This outlines the corners to make it stand out more. You can add a drop shadow to the outlined text that can be removed when the icon is selected, giving the impression of the text being pushed in. A gradient colour fill on the font will make it look more like a part of the icon and the fill can have its light source at the bottom, centre or top. You can even have a blurred drop shadow to improve the look of the text. The shadow is easily achieved using *PPaint*'s filters.



Three types of font outlining, depending on how much you want the text to stand out.

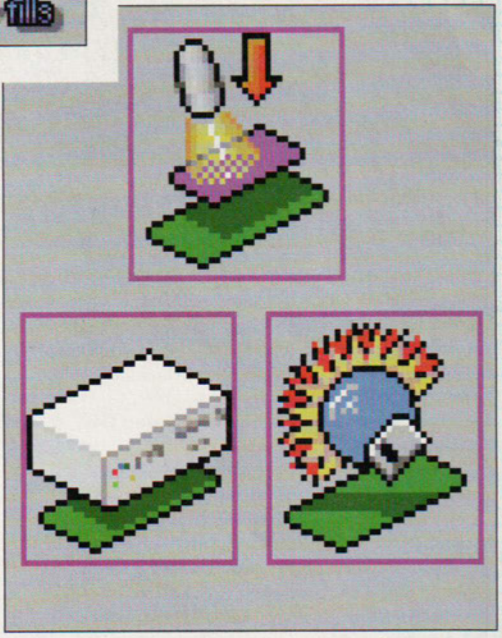
Cut out the text, hit f2, select the darkest colour you want the shadow to be and paste the brush onto the screen. Now select the "Blur low" filter and apply it to the shadow. Put the original text over this (slightly off-centre) and you have a blurred shadow, similar to some of the titles used in *Amiga Format*.

If you use DOpus you will have found that copynewicon doesn't work across 2 listers. Each lister is a separate process so clicking on a source icon, clicking on a destination icon and running copynewicon doesn't work.

I got together with Andrew Rooney and I designed and he programmed a tool which makes copying newicons much easier. The result is *NIconFace* which also makes it easy to create a default icon. *NIconFace* is on the CD and it hasn't even been released yet, so you lucky *AF* readers are the first to use it.

Next month I'll be covering interesting methods such as dithering, anti-aliasing, movement and textures.

The more you draw the better you get, so if you keep pratising you will soon notice a definite improvement.



How the light is projected on *NewIcons* – the top icon is a good representation of where the light source is. The two bottom icons show how to deal with a flat and a tall object.

CONTACTS

If you have any comments about the program or about this tutorial, email me at: ash@absurd.demon.co.uk.
I can also be found on IRC (ANet and IRCNet) as Abstruse.

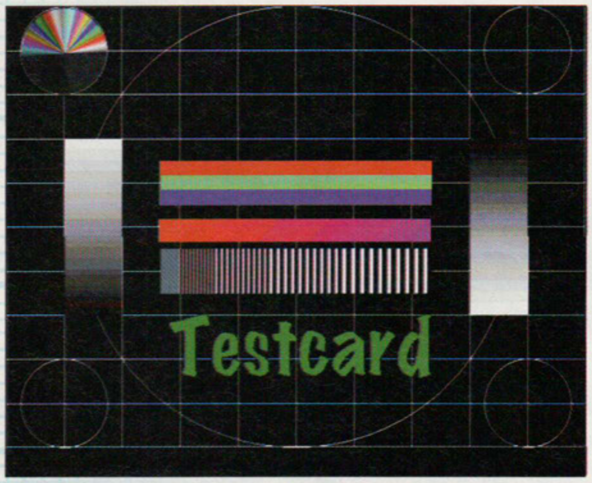
Amiga Graphics

What's the best way to view your files? The ever image-conscious Nick Veitch knows.

ON THIS MONTH'S CD AFCD29:-In_the_mag-/Graphics

Although it's all very well obtaining or creating the best images you can, in order to do them justice you need to be able to output them properly as well. We'll be covering printing in the next issue, but this month we'll be taking a look at a (supposedly) simpler form of output – your monitor.

Getting a decent display depends on both your hardware and software.



Contents

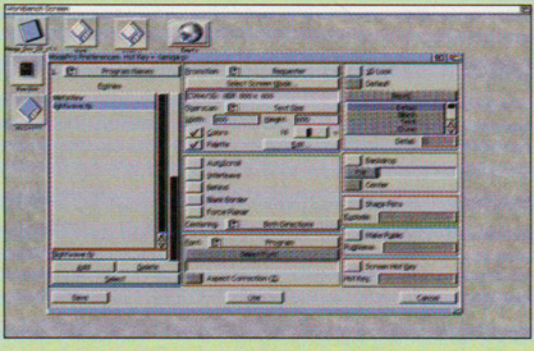
Missed a tutorial in this series? Call our back issue hotline on 01458 271102 or see page 51.

When I say monitor, I am referring to whatever you use as a screen display. It could even be a TV, although I hope you will have realised by now that this really isn't an ideal method of getting a good picture from your Amiga. The very least you could do is get a TV with a composite or RGB SCART input, which would dramatically improve the picture quality.

MODEPRO

ModePro is a utility slightly related to displaying graphics. Basically, it can be used to force a change in screenmodes – your software may request a particular screen, but *ModePro* intercepts it and requests a different screenmode, one which you have specified.

This is most useful when dealing with old software that doesn't let you select a screenmode and wants to make you use some interlaced nonsense when you are quite capable of opening a flicker-free screenmode using the DblPAL drivers.



And, of course, if you are using a VGA monitor, you can automatically promote all non-VGA modes to something that you can actually display.

ModePro can open specific screens for specific programs or redirect specific screenmodes to other modes, so it is quite easy to set up. I have used it quite a bit, most usefully to convince *Lightwave* that it can open an 800x600 window that I can actually see, thank you very much.

VISAGE

Visage, by Magnus Holmgren, is probably the fastest multi-purpose viewer around at the moment. The good news is that it employs a feature rather like the intuition BestModeID() function introduced in WB3, which means it can always make a good guess at the best mode to display your image in, even if you have a graphics card.

It also comes with an optimsed version for '020+FPU, which means it is pretty fast. It is definitely the fastest JPEG viewer I have used on the office A4000 anyway.

As with *Viewtek*, there are loads of command line options you can specify, which not only means that you can do pretty much what you want with it, but they also make it ideal to use as a viewer in conjunction with Directory Opus or other file manager utilities. I would strongly recommend that you try it out.

MODES

The Amiga is different to many other popular computers in that it still uses the concept of screenmodes. These were quite popular on the old 8-bit micros and on the ST.

These modes are used for specifying the colour depth, dimensions, refresh rate and sometimes the device to be used to display data on the screen. The advantage of having a lot of them is that you can use the one that most suits your needs.

The Amiga identifies screenmodes by looking them up in the display database. A few modes are always available and the rest are defined by drivers when Workbench is loaded (these are the files which are contained in the devs/monitors drawer).

By using this system, it means that future monitor types, as well as different display devices such as graphics cards, are supported directly through the operating system.

The display database entry has a hex value which denotes the type of screen and what particular attributes it has. For example, bit three in the ID number indicates an interlaced mode. Of course, it is much easier for us to deal with actual names, so the associated screen names are shown in

Graphics Cards

Although there were once many types of graphics cards, these days you will generally find that they are pretty much of a muchness. Only two main graphics cards are still available, the Picasso IV and the Cybervision 64/3D.

Virtually every graphics card is now supported by either the CyberGraphX system or the Picasso96 software, and the differences between them are no longer as significant as they once were.

Graphics cards generally give faster displays in greater resolutions and colour depth. The actual resolutions you can achieve will depend on your monitor. It is pointless having a graphics card and anything less than a proper monitor. The Commodore 1942 isn't ideal but it will suffice for lower resolutions. An old 1084 isn't going to cut it. If you are going to buy a graphics card, you might as well get a decent monitor to go with it.

Incidentally, the creator of Visage has also written a rather helpful guide on generating screenmodes for graphics cards, which you can find on the Internet at:
http://www.algonet.se/~lear/modes/modes.html



An image processor like *Image FX* can be useful for converting images for display.

programs that allow you to select screenmodes. The Screenmode program found in your Prefs drawer on Workbench is probably one of the best examples of this.

RESOLUTION

Obviously, the higher the resolution (x, y and colour depth), the better the resulting display. The resolution on an AGA machine is usually limited by the amount of chip RAM that is available (see part one of the series for a more detailed explanation).

The actual resolution you can use is determined by your monitor, display hardware and, to some extent, which version of Workbench you are using.

Obviously, choosing what resolution to use to display an image depends an awful lot on the resolution of the image itself. If you have a lo-res, 8-bit picture, that's the kind of screen you'll want to display it on. The real decisions come with higher resolution images.

If you don't have a graphics card then you will have to display 24-bit graphics on a lower resolution screen. HAM screen modes will give the best range of colours, but they are also slow to generate. If the selected image is larger than your maximum screen, most viewers will display the image at a 1:1 pixel ratio, allowing you to scroll the visible display around the images, but again, this can be very slow with HAM displays. Check that the 24-bit image you are viewing actually is 24-bit. Many JPEGs on the Internet are not 24-bit images, they're really 8-bit images which have been converted to JPEGs to save space. In these cases you will not be losing a great deal of quality by displaying them on a 256-colour screen (apart from the quality already lost in the JPEG compression process).

Paradoxically, a small amount of colour reduction dithering can make low-quality JPEG images look better, as the dithering masks the block artifacts of the compression process. If your selected image is HAM-6, those of you with AGA Amigas would be well advised to convert it to HAM-8 format for viewing. Ham-8 is faster and doesn't suffer from the same resolution restrictions of the original HAM mode.

> **"... choosing what resolution to use to display an image depends an awful lot on the resolution of the image itself."**

Permanently converting a 24-bit image to a HAM mode will reduce the amount of time taken to display the image, but scrolling around the image will still be slow. It may be worth reducing the width and height of the image in order to get it to fit on the display area. Many utilities can do this for you, from the image manipulation magnificence that is *Image FX*, down to paint packages like *PPaint* (although *PPaint* doesn't deal with HAM images).

VIEWERS

Workbench 3 included a utility called *Multiview*. The purpose of this tool was to allow any document or image format to be viewed simply, just by calling one utility. It was able to do this because it supports datatypes, a method that WB3+ uses to define common file formats so that all software can access them.

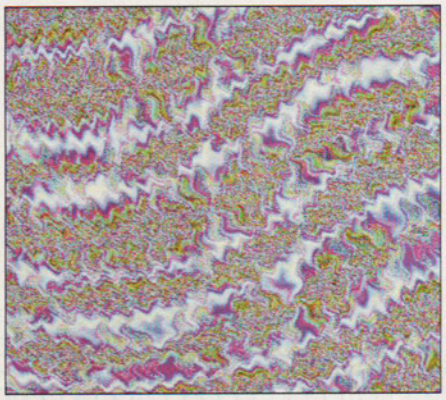
The only problem with *Multiview* is that it is slow. It isn't really all *Multiview*'s fault either, as the datatype system is inherently slow. The system has to check the file to see what type of file you are trying to access, check to see if there is a corresponding datatype, execute the datatype and then convert the data into an image. Viewers with built in file recognition are always going to be faster.

However, some of the datatypes around these days, such as akJFIF, are so streamlined that it's actually faster to use them rather than the built-in loaders for older viewer software.

Probably the most commonly used picture viewer is *Viewtek*. It achieved notoriety not just for its speed and filetype support, but also for its ease of use. It is simply a matter of running *Viewtek* and selecting which file you want to view. The program automatically works out the filetype, resolution and depth, then displays the image in the most appropriate screenmode it can find. You can also specify a filename to save the file as a JPEG, so it has uses for file conversion too.

Viewtek has its limitations too, the major one being a lack of graphics card support. There are versions of *Viewtek* for CyberGraphX and Picasso, but it takes away a lot of the ease of use if you have to select a specific viewer depending on how you want it displayed. Also, it isn't as fast as some more modern viewers, which can be a factor if, say, you're planning to display a slideshow from CD. Probably the best all round viewer currently is *Visage* (see boxout). It's certainly the one we use.

I hope this has answered some of your questions about the best way to view files. If you have any queries, just send them to the Workbench section of the mag. I'll see you next month for some fun with printers.





Ooer, swirly things. Although these images are 24-bit, they look fine in Ham-8.

C for Yourself

John Kennedy explains how to draw in an Intuition Window. AFCD29:-In_the_mag-/C_for_Yourself

ON THIS MONTH'S CD

Contents

Missed a tutorial in this series? Call our back issue hotline on 01458 271102 or see page 51.

We've already mastered the hardest part of programming the Amiga: the concept of using Intuition, the Amiga's window-based operating system. Here's the next hardest part – making the mental transition from a program that works on a line-by-line basis to one which is "event driven". This is a complicated thing to grasp, so have a think about it.

If you have ever written a program in a language such as Basic or ARexx you are probably used to your program starting at the top and working down the listing until the end. In between there will be loops and conditional sections, but essentially the "flow of control" in your program trickles down from the top to the bottom.

> The OS and all the programs running communicate with each other by sending each other little messages.

Now we're moving into the world of multi-tasking, and here things work differently. The core of last month's listing was a function call which didn't do anything but wait. This is exceptionally important: as we said then, you don't want your program to be performing an empty action such as a giant loop, sucking up processing time and slowing down the entire computer. Ideally, you want your program to go into suspended animation until it's needed. This is what that Wait function does, with help from the operating system. The OS runs all the time in the background, looking after all the programs and utilities which are running on your computer.

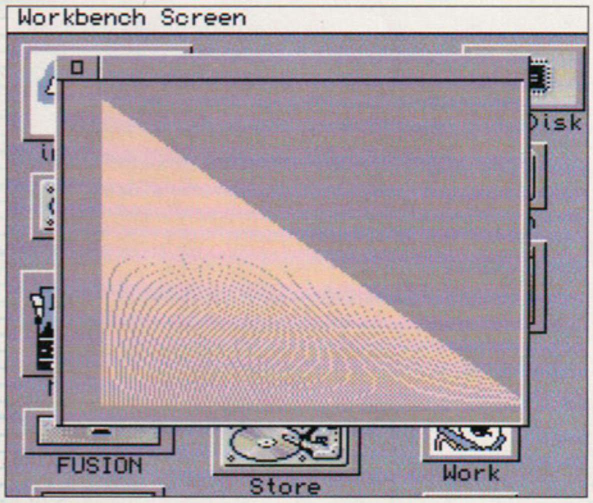
If your program wants to wait, it tells the OS and the OS stops giving it a slice of the available CPU time until it needs some again. The program only gets some processing time and can carry on when the OS decides.

How the OS looks after these things is due to a technique called "messages". The OS and all the programs running communicate with each other by sending each other little messages.

Here's how it works in practice. Imagine your program is menu driven and is currently doing nothing because it's waiting for you to select an option from the menu. At this point, the CPU tells it to go to sleep and gets on with looking after other processes.

Now you select a menu option from your program. Instantly, the OS sends your program a message (called an IDCMP message) and the message effectively says: "A menu option has been activated, and here's which one."

Now your program wakes up. It takes the menu option number given to it by the OS, performs the required action and then goes back to sleep. That's how a multi-tasking operating system allows dozens of programs to run at once.



All that work for a little window with lines in it!

DRAWING ON THE WINDOW

We're getting a little ahead of ourselves here. Let's get back to our window program and start to make it do something useful. One of the most elementary tasks you will need to do is display words, numbers or images inside the window. As you'll know, when you drag an Amiga window around the screen, the contents are maintained for you. You can even overlap the window and the Amiga still looks after everything.

It does this by effectively creating a unique display for each open window. Each window has a bitmap to store the contents and a special structure to keep track of it called a "RastPort". Yes, it's a nasty piece of jargon, but it needs to be called something after all.

As the OS is looking after the window and its contents, you have to ask the OS to help write to this display as you cannot simply use the standard printf function. Intuition provides the instruction PrintIText() for displaying text. PrintIText() is quite complicated because it's very flexible.

If you like, it's close to the top of the Amiga's functions and it can sometimes be simpler to drop down to a more basic level. To prove that this is true, let's start by drawing a few lines in our window.

Drawing a line is such a basic thing that it's called a graphics primitive. There are several functions involved and here's a list of some of them. You'll notice that the first parameter they all take is the address of the window's RastPort structure.

```
SetAPen(rastport,colour)
WritePixel(rastport,x,y)
Move(rastport,x,y)
Draw(rastport,x,y)
DrawCircle(rastport,x,y,radius)
DrawEllipse
(rastport,x,y,radius_x,radius_y)
```

SWAPPING VALUES

You might remember back in part three when I described a function which could swap the values in two variables. It was all done using pointers, using a third value to store the intermediate value. Loyal *AF* reader David Bateman wrote in answer to the question "How does it work?" with the correct solution. Feeling smug, I asked if he could re-write it so it didn't use the third variable for storage.

I was extremely surprised to get back an email explaining exactly how it could be done using only the two variables and no hint of a temporary storage variable. Top marks to David for his ingenuity, and if you want to know how he did it... well, you'd better email me at af@sticky.net and ask. I'll give you a clue: David used plus and minus signs to write his function.

FINDING THE RASTPORT

When Intuition opens a window for us it automatically creates a RastPort structure so it can look after it. If we can determine the location of this RastPort in memory, the way is clear for us to use the functions above to access the window.

Remember that the Amiga is multi-tasking, and so the RastPort won't appear in the same place in memory every time. Also, every window that is open has its own RastPort so we must pick the correct one.

Before we can ask the operating system for the RastPort's location, we have to create a variable to store it. Here's how we do that:

```
struct RastPort *rastport;
```

This defines a variable called "rastport", which is a pointer to a RastPort structure. In other words, it's a variable designed to store the address location of a RastPort. Of course, just because we declare the variable doesn't mean we know the address, but we can find it using the command:

```
rastport = window->RPort;
```

This magic spell accesses an element of a window structure called "RPort". This is a pointer to the window's RastPort and Intuition keeps it up to date. Once we've got this value we can start drawing.

MAKING A MESS

What we actually draw on the window will depend on the purpose of the program, of course. Let's not aim too high and start by simply drawing a mess of lines. Now we can return to the sort of C programming that we all know and love, with for loops, variables and so on. To draw a series of lines, we can use a loop like this:

```
for (x=20;x<200;x++) {
Move(rastport,x,200);
Draw(rastport,20,20); }
```

Feel free to change this totally – it's your program, after all. Try experimenting with the circle and ellipse drawing tools too. The complete source code is in Listing One (the new parts are highlighted in yellow), and the result of the program is shown as well. It seems a lot of work just to draw some squiggles in the window, doesn't it?

First of all, we need to include the new functions for working with graphics. Then we need to open the graphics library up so we can use the graphics routines. We must check that this has worked, and only then can we draw to the screen. And, of course, we need to close the window and libraries when we've finished.

Pretty soon you'll get used to all these extra bits and pieces, and you'll even think about moving them away into their functions so you can quickly include them in all the programs you write, without having to retype them every time. Now you're starting to think like a programmer!

Listing 1

```
#include <exec/types.h>
#include <intuition/intuition.h>
#include <intuition/intuitionbase.h>
#include <intuition/screens.h>

#include <graphics/gfxmacros.h>
#include <graphics/gfxbase.h>

#include <clib/exec_protos.h>
#include <clib/dos_protos.h>
#include <clib/intuition_protos.h>

struct Library *IntuitionBase;
struct GfxBase *gfxbase;          // Open the graphics library!

struct TagItem win_tags[] = {
        {WA_Left,            20},
        {WA_Top,             20},
        {WA_Width,           200},
        {WA_Height,          160},
        {WA_CloseGadget, TRUE},
        {WA_IDCMP,           IDCMP_CLOSEWINDOW},
        {TAG_DONE,           NULL},
};

void main()
{
        struct Window *win;
        struct RastPort *rastport;

        int x;

        IntuitionBase = OpenLibrary("intuition.library",37);

        if (IntuitionBase!=NULL)
        {

                gfxbase=(struct GfxBase *)OpenLibrary("graphics.library",33L);

                if (gfxbase!=NULL)

                {

                        win=OpenWindowTagList(NULL,win_tags);
                        if (win!=NULL)
                        {
                                // Window open, find the RPort draw your stuff!

                                rastport=win->RPort;

                                for (x=20;x<200;x+=2)
                                {
                                        Move(rastport,x,150);
                                        Draw(rastport,20,20);
                                }

                                // Now wait to quit
                                WaitPort(win->UserPort);

                                // Wait around
                                CloseWindow(win);
                        }

                        CloseLibrary((struct Library *)gfxbase);
                }
        CloseLibrary((struct Library *)IntuitionBase);
        }
}
```

DEVELOPER TOOLKIT CD-ROM

Some excellent news: the official Amiga development CD-ROM is being re-issued. The *Amiga Developer CD version 1.2* contains all the information that has traditionally has been so difficult to find. All the function headers, include files, official documentation on using the libraries and IFF files have been collected and placed on one CD for easy access. We'll let you know of a UK dealer and try to get some kind of special deal together for *AF* readers.

Under the Bonnet



Beyond IDE... Simon Goodwin waxes lyrical about SCSI.



AFCD29:-In_the_mag-/Under_the_bonnet/

Contents

Chapters 7 – 12 to follow. If you've missed any so far, call our back issue hotline on 01458 271102.

We compared SCSI and IDE last month. Despite ATAPI, SCSI runs rings around IDE because every SCSI device is a distinct computer with standard commands, capable of independent communication with any other device over a shared cable.

Groups of drives can work in 'RAIDs' (Redundant Arrays of Inexpensive Drives) giving vast capacity, reliability and high speed – you can even swap drives as a RAID array works, without losing any data!

SCSI drives can search for data or copy blocks around, without processor intervention. Block transfers work the same for any device, scanner, disk or tape, and special commands for each are accessible through Kickstart's SCSI-Direct facility. SCSI 2 augments these special commands; it's purely a software change, so any SCSI interface can support SCSI 2 standards with suitable drives, though it may be no faster than the SCSI 1 subset.

> *If you've switched to SCSI from IDE, you may be annoyed by the wait as the Amiga scans for non-existent devices...*

'Reselection' lets drives get out of the way during lengthy operations such as searches, signalling the controller when ready. This fits in well with the Amiga's multi-tasking, but some drives get it wrong so *HDToolbox* senses this and then lets you switch it off.

SCSI IDS

Each SCSI device has its own ID number and uses a unique data line to request attention. Standard SCSI uses eight data lines, allowing eight drives numbered from 0 to 7. The highest has priority so cheap controllers are fixed at 7 – the interface is a device like any other. Switchable controller IDs are essential to use SCSI as a network interface as you can't have two controllers on ID 7.

LUNs (logical units) allow sections of drives to be selected, but rarely appear except in multi-CD drives.

SCSI Zip drives only allow IDs 5 or 6, but most SCSI devices have three jumpers to set the ID number, a binary pattern from 000 (zero) to 111 (seven).

Amigas scan from the lowest first and can stop after a 'last ID', so low numbers are best for quick-booting hard drives.

CABLES

Standard SCSI uses a 50-way cable: nine data, nine control lines, plus lots of earths for speed and stability. Apple and Commodore slashed this to 25 pins, allowing cheap connectors at a risk of misplugging and blowing up printer ports or parallel scanners, as well as incompatibility with Fast SCSI or long cables. SCSI devices are strung out along a 'chain', nominally up to 6 metres long. Differential SCSI adaptors use two wires for each bit, allowing 25 metre cables.

Fast SCSI allows several bytes to be on their way before they need to be acknowledged. 'Fast synchronous mode' boosts top speed from 5Mb to 10Mb per second on SCSI 2 interfaces by stacking data in the cable – long connections have several bytes strung out along the line as they work.

TERMINATION

The classic cause of SCSI problems is incorrect termination. To stop the cable working like an aerial, bouncing signals confusingly along its length, resistors anchor each end of the SCSI chain. It's vital that termination is at both ends of the chain and not in the middle.

SCSI-1 termination was 'passive', a set of resistors tying signals to earth.

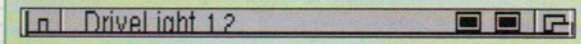
SEE THE LIGHT

Most drives and some interfaces have connectors for LEDs which light when the drive is used. These are useful for status reports and to warn against switching off and resetting with the drive in action.

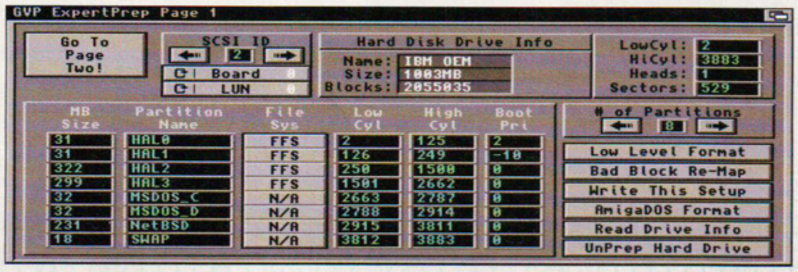
The best arrangement, as on the A4091, daisy-chains the signal from the motherboard interface so that the front LED flashes whichever interface is busy. Alternatively, you can fit a light for each interface or one for each drive. Most drives have a built-in light which you can move or connect across, or a two-pin connector for an external LED. The D stands for Diode; LEDs only conduct electricity one way, so if it doesn't work one way round, swap the legs over and try again.

***DriveLED* is a neat program that patches the Amiga to give you simulated LEDs for each interface on your desktop. You specify the device names for it to monitor, such as scsi.device, or even trackdisk.device for the floppies, and it blinks a box when the device is accessed.**

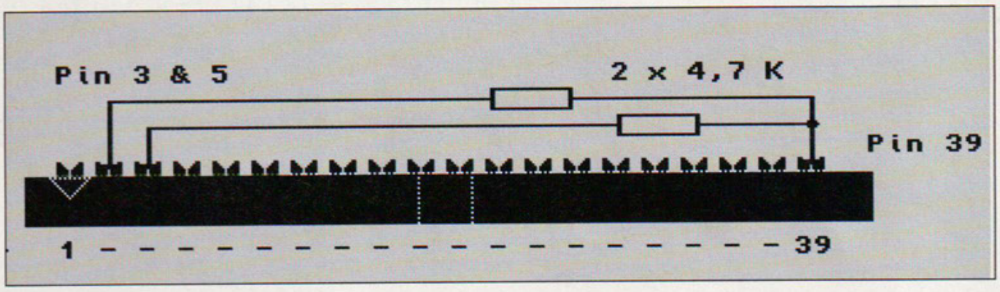
***DriveLED* can't distinguish between drives, or 'units' in AmigaOS jargon, and it's not font adaptive, so I've put two patched versions on *AFCD29* for those using tall fonts. It works fine but crashes my A4000 if closed down, so I leave it on all the time.**



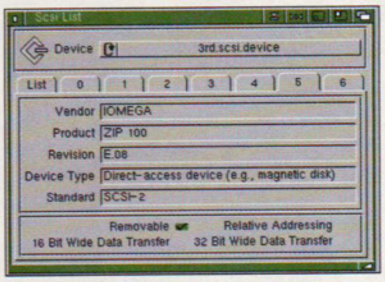
I've patched *DriveLED*, on the *AFCD*, to stop it scrunching its title.



If you dislike *HDToolbox*, GVP's *ExpertPrep* supports up to 8 partitions.



(Above) This Aminet gadget banishes IDE delays for under a quid!



SCSI-LIST presents SCSI information in a MUI window.

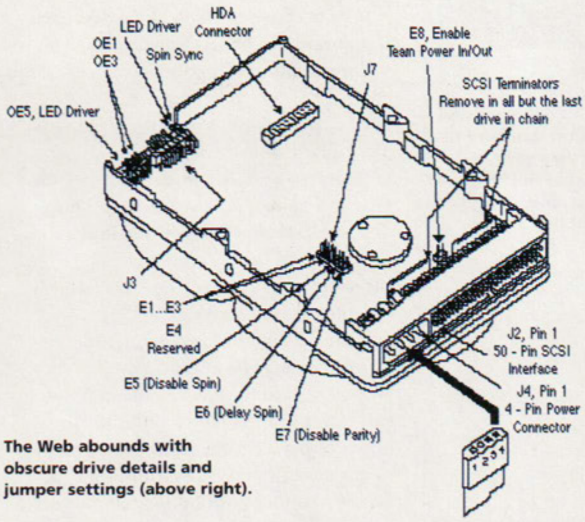
Old drives often implement this as a row of holes for two or three thin resistor packs. Remove these if a drive is not at the end of a chain, noting which way round they go as you may need to replace them later.

SCSI-2's 'active termination' uses a voltage regulator to hold the ends of the chain mid-way between low and high logic levels for increased speed and reliability. Most modern drives and interfaces have built-in active termination which can be switched or jumpered on or off.

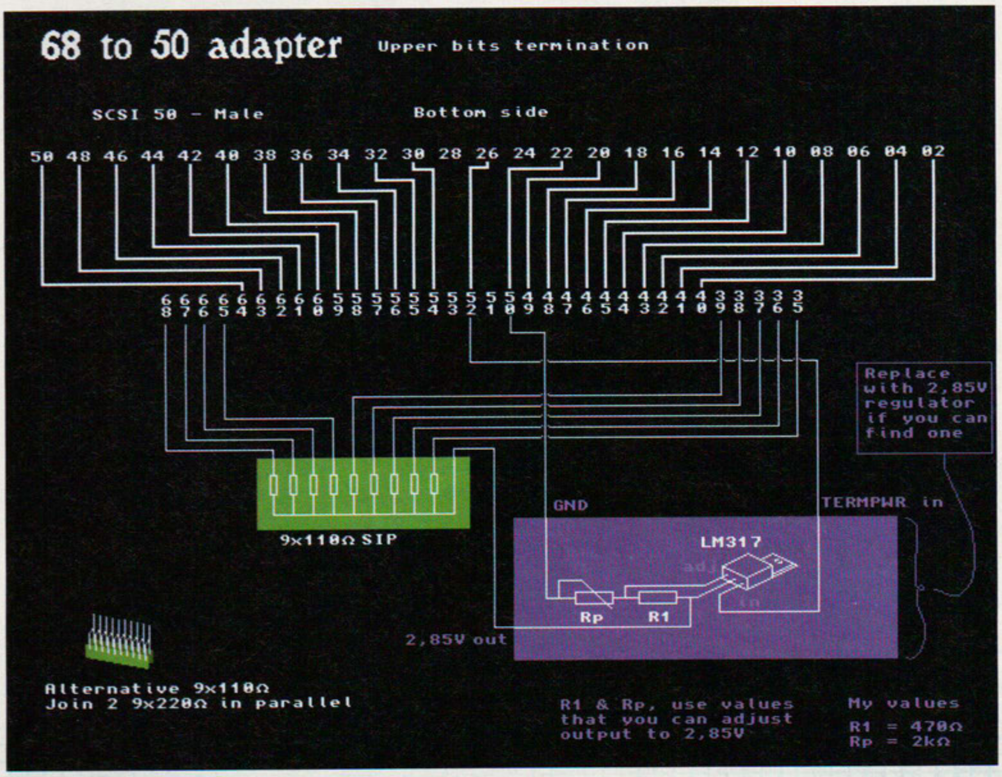
The alternative is an external plug-in terminator. This is a small board similar to a SIMM but which has 50 connections for the end of your SCSI chain. These take power from pin 26 of the cable via 'TermPower' jumpers on many devices.

Internal cables use cheap two-row 50-way 'IDC' Insulation Displacement Connectors, scaled up from the 40-way IDE equivalent or the 34-way connector at the back of a 3.5" floppy drive.

External cables use a D-shaped 50-way plug, scaled up from the 36-way 'Centronics' printer socket, or a modern latching mini-D connector which is favoured for SCSI-2.



The Web abounds with obscure drive details and jumper settings (above right).



This adaptor from Aminet lets you use 50-way SCSI drives on a PPC.

Drive Data

http://w3.teaser.fr/~praynaud/HD/
http://web.idirect.com/~frank/
http://www.seagate.com
http://www.quantum.com
http://www.wdc.com ...etc!

STARTING UP

If you've switched to SCSI from IDE, you may be annoyed by the wait as the Amiga scans for non-existent devices, especially on Workbench 3.1 which has an extended delay to suit sluggish drives.

Cures include *NoIDE*, a resident software patch that skips the IDE test on subsequent resets, or *KillIDE*, a little adaptor that's just two 4.7K resistors on a 40-way header, connecting pins 3 and 5 to earth (pin 39), provoking the Amiga into giving up at once. Both have saved me many hours over the years of my Amiga SCSI activities.

If your drive or combination is slow, the Amiga gives up prematurely and presents the 'feed me' disk animation when started from cold. If you get sick of resetting then patches allow more time, or you can shuffle drives so scanning stops before slow drives, like DATs and CD burners, which you won't want to boot from anyway.

Many hard drives have jumpers which delay spin-up until they're first accessed. These minimise the start-up load on the power supply but also delay booting. You can reduce noise and perhaps spindle wear with software to turn off inactive drives after a predetermined delay, but you have to wait while it re-starts, and the strain may be counterproductive on a drive designed to spin continuously.

WIDE SCSI

CyberStorm PPC's 'Wide' SCSI interfaces use a 68-pin cable with 16 data lines, allowing speeds up to 20Mb per second (Fast and Wide) and up to 15 drives. You need an adaptor to terminate the top eight unused data lines before you can connect 'narrow' drives. phase 5's PPC does not come with adaptors or terminators, although Maplin stock adaptors and relevant circuits can be found on the CD.

The SCSI standard breaks down after SCSI 2 FAST, with unratified 'SCSI 3' and 'Ultra SCSI' ports using a mixture of 50, 68 and 80-pin connectors in IDC, mini D and rarer formats.

READ ON

A drive is only as good as its software and so far I've concentrated on the hardware. Next month I'll take a look at the devices and handlers that bring SCSI and IDE drives to life. As usual, the *AFCD* includes useful programs and information in the 'Under The Bonnet' drawer.



MailBag



Send your letters to: **Letters To The Editor • Amiga Format • 30 Monmouth Street • Bath • Somerset • BA1 2BW** or email: amformat@futurenet.co.uk – putting 'Mailbag' in the subject line.

SPARE US	SEND US
Complaints about review scores	Your reviews!
Requests for various bits of old software and games	Reader Ads, which is a whole section devoted to this sort of request
Emails addressed to the wrong department or not addressed at all	Ones which are properly addressed, which we might read
Letters claiming some bloke down the pub said the Amiga was dead	His name and address so we can teach him otherwise
Complaints about backward compatibility	New Amigas

DIFFERENT STROKES

As you always talk about the Zorro II or III bus being connected to a graphics card (you even recognised that it was quite expensive) I wondered if you knew about the Pixel 64 graphics card and Atéo bus sold here in France.

The bus seems to be powerful enough (9Mb/s) compared to Zorro III, but really is cheaper, costing about £200 for both the bus and the card.

The bus should be useful for other cards as well (sound, Ethernet, etc) and, even if I'm still waiting for the review in a French magazine, I know it was released a few weeks ago.

Mickael Chatelain
France

We have had a number of comments about the Atéo expansion system. Unfortunately, we can't do a review until we have one, and the manufacturers still haven't sent us one...



The Atéo expansion unit is supposed to be very good, but we haven't received any for review yet – hint hint...

POTS AND KETTLES

It was amusing to read Gareth Murfin's Long Term Review of *Ultimate Blitz Basic CD* in *AF110*. He criticised the product because of how the CD was put together. I quote: "The CD should be arranged for ease of use and stability and the booklet should be supplied in hard copy like it was with the floppy disk release a few years ago."

Anyone who has bought Mr. Murfin's game *Ultimate Gloom* will have experienced exactly the same faults that he described in this review (I hope it's the same Gareth Murfin or this letter is completely pointless).

The CD is supposed to include *Gloom, Gloom Deluxe* and *Gloom 3*. However, I could only get *Gloom 3* to run with minimal effort and it took hours of persevering before I managed to get the original *Gloom* running with *Gloom 3* baddies and home-made levels.

I do recognise and applaud Mr. Murfin's efforts in the Amiga community, but I feel he should concentrate on getting his own products right before he starts criticising others.

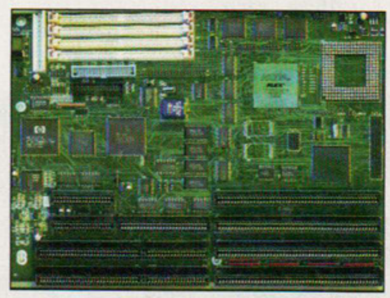
Jonathan Openshaw
Bromley

We await Gareth's comments...

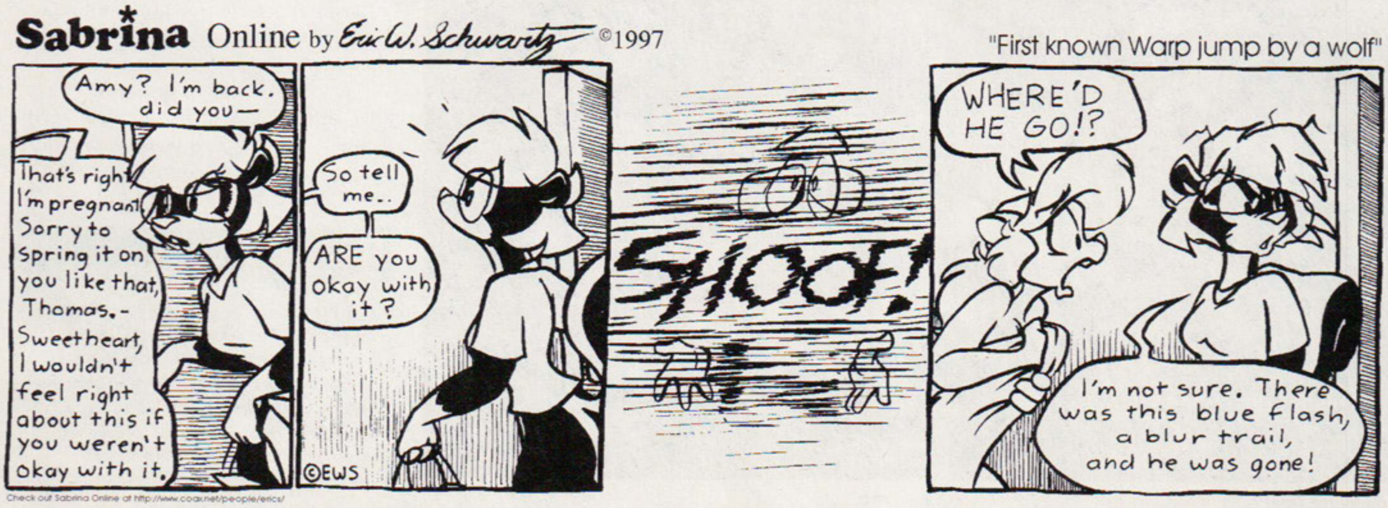
IN THE BOX, AND ON IT

Your BoXeR review really had the juices flowing. It seemed to be the perfect replacement for my ageing A2000 with an '060, Picasso IV and a nasty, external, half-speed HD floppy – Catweasel won't work with a Picasso IV in the house. Then the penny dropped. No SCSI. No SCSI? What?

Give up my JAZ for some cramped and clanking JIF and my SCSI CD-ROM for a rotten, junky, IDE-type, not to



The BoXeR motherboard – low costs and low complexity at the cost of SCSI?



Check out Sabrina Online at http://www.coax.net/people/erics/

GAME DRAIN

In *AF109* I saw the article featuring Paul Carrington from Vulcan talking about particular piracy and retail problems. I understand this man's view and it's easy to figure out that selling Amiga products by mail order companies only won't save the machine. Add to that the piracy going on all over the software industry, which doesn't help at all.

Here is the problem we are facing in Belgium. A company called Ariola Soft, Bruxelles (I don't know if they still exist) was responsible for the distribution of Amiga, Sega and probably other platforms' software. When Commodore went bankrupt, their answer was to instantly stop distributing Amiga products and other stuff in the Commodore range. It was the same when Sega Belgium stopped their activities.

Now Amiga retailers have to find software their own way. I know that GTI-Germany is doing a great job but what's the use if there's nobody to distribute in the big stores? Small retailers are not well known, advertising costs them a lot and they cannot make regular adverts in the big papers.

Are we going to do nothing? What about putting up a list of those previously responsible for the Amiga software distribution and ask *AF* readers to hassle them into reconsidering how worthy the Amiga is as a platform.

Phillipe Dumont
Belgium

The problem with distribution is not, I dare say, with the distributor, who would be happy to ship virtually anything as long as they got a percentage on it. The problem is much more likely to rest with the chains of stores they distribute too. Nagging the distributors isn't going to help – you should nag the shops themselves.

mention all hopes of converting my flatbed scanner to SCSI to improve its transfer speed? I'd be no better off than the A4000 boys with their grotty little chocolate boxes, all IDE drives and no room to move.

A Zorro III SCSI board would cost nearly as much as the BoXeR itself and use one of the none too plentiful expansion slots. Forget it!

Something to add to your TV-Amazing review (silly name, lovely gear). It also converts SECAM to PAL. I bought two and can now watch the French satellite channels in colour, upstairs and down. Stand-alone SECAM/PAL converters are quite pricey. My downstairs telly is now based on the cheap SVGA monitor that serves my 50Mb CD^{32} second setup, that is quite happy working in multiscan productivity and is Parnetted to the main machine to save buying another floppy (the CD^{32} boots from the – urgh! – IDE internal hard drive).

The TV-Amazing with the main machine provides the perfect full-colour, full-size monitor, FULL SPEED screen when I'm using V-Lab, as it's easy to switch between computer and video, and V-Lab can be ARexx driven blind from the keyboard.

K. J. West
Deal

You could, of course, get a much cheaper ISA-based SCSI card and use that. I think the idea of not including SCSI is to keep the costs and complexity of the motherboard down. As many people now make use of fast (well, faster anyway) IDE drives, this isn't really such a terrible crime.

Thanks for the extra info on the Grand TV Amazing box. I'm sure there may be a few people around the world who will be glad to know that.

PORTABLE PAL

Having bought a laptop (PC) 166 and watching it depreciate in value week by week, I am now back with the Amiga. I found the emulation of the Amiga far too slow, although I was very impressed with the Amiga emulating the PC for such a slow machine. Surely with the advent of the PPC it's really going to kick some serious PC and Mac butt.

This would also be a very fast way of getting some seriously good software to the Amiga and PPC. Are phase 5 going to produce a motherboard (PPC) to fit in laptops as this would be the best route?

R. J. Scott

We don't yet have any information on anyone producing a portable Amiga, but if it were to be done, I'd suspect Index (the people who are behind the BoXeR) would be the most likely source.

SMALL BOYS

I would like to express my sincere thanks to all the kind and helpful gentlemen who called me with offers of help and advice following my recent appeal for assistance with installing my Zip drive. The response was fantastic and it endorsed my impression that the Amiga community consists of a lot of very nice guys indeed.

They were not all experts by any means. In fact, one gentleman was a comparative novice himself but was thrilled to be able to help someone else. I made the mistake of referring on one occasion to the majority of Amiga buffs as "little lads", but was corrected by one of my contacts as he was in his forties.

However, as I am a grandmother and (just about) old enough to be his grandmother, I stick to the "little lads", but what a grand lot of little lads!

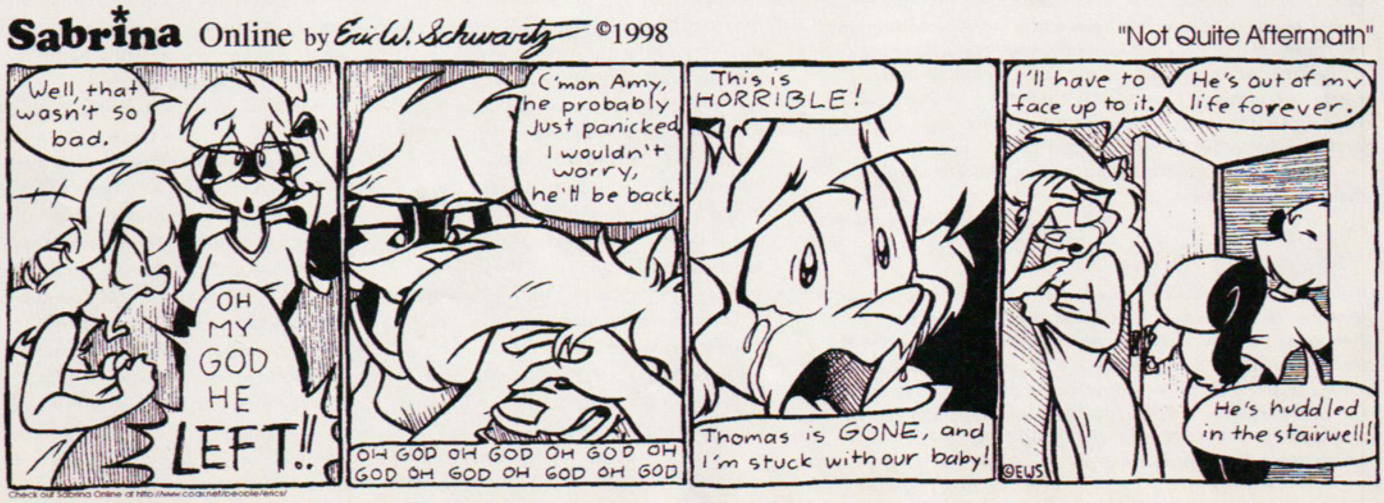
I took particular note of the fact that my contacts were all male. Are there no female Amiga adherents out there? Or could it be that because the Amiga has always been seen as a gaming machine, an image which (to my mind, wrongly) continues to be promoted, the female, being a busier, more serious minded creature, is not attracted to it? The Amiga has some excellent serious applications which would now be the norm in the office environment had Commodore got its act right in the first place, instead of going for the games image.

In the time during which I have been using and gradually upgrading the original 1500 which I took over from my husband when he deserted to the PC camp, he has worked his way through no less than four new versions of the PC. I think this speaks for itself.

Mrs Irene Hooker
Minchinhampton

I'm glad that you have experienced first hand how helpful the Amiga community can be. We do have some female readers, but they don't often write in, sadly. Maybe they are just more adept at using their Amigas and never need any help…

Continued overleaf ➡



BROKER BROKEN?

I have been trying for some time to start *AmiBroker 2.5* on your subscriber's disk 101, with no success. I loaded *AmiBroker* to RAM, then to disk, only to find a disk full error. Then I tried dragging the RAM disk to the work partition. When I try to start the program from work it reports an error and I can't open Req tool.library.

Could you help, either by providing some instructions or the author's name and address for help and registration?

George F. Avery
Coventry



AmiBroker was thoroughly examined way back in AF103.

Well, this excellent program does actually work, and was the subject of a feature in Amiga Format. *It sounds like you don't have a version of the reqtools.library, which is a third-party library used by many programmers. You'll find a version of it in the libs: drawer on the CD, so simply copy this to the libs drawer of Workbench and try again.*

If that doesn't work, check that you have the right system requirements. It does require WB2 and 2MB of RAM. If you are running on an unexpanded A1200 you might not have enough RAM left if you waste it on NewIcons, *256-colour Workbench screens and so on.*

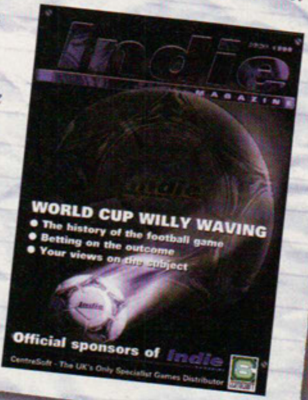
WHATEVER HAPPENED TO?

What happened to Dale Bradford? He just disappeared. Er, as did the interesting *Foundation* WIP. And the *Bomberman* tanky-game WIP. What's happening? Have the projects stopped, or did you forget about the WIP reports?

Thomas Taylor
thargod@postmaster.co.uk

Dale Bradford left AF in order to pursue a solo career as an evil media tycoon in his own right. His stable of titles currently consists of Indie, *a rather good magazine which is intended for independent computer retailers.*

As for he rest of the supposed disappearances, no, they were not abducted by aliens. We finished the Foundation *WIP because, er, the game was released, so there wasn't any more progress.* H-Bomb, *the bomberman/tank game you mentioned is a little different as the original programming group have split up, though it is still expected to be released later this year.*



Indie magazine was spawned from the mind of former AF-er Dale Bradford. So he's not dead or anything...

A LONE VOICE?

I'm sure I don't stand alone when I wish to voice my opinion about Amiga International's decision to switch to the x86 processor. It's a slightly different story for me, though. At one time I had both a Pentium system as well as my A3000.

I fell on tough times and had to make a decision to sell one of them to make my rent. Well, being the loyal Amigan I am, full of hope for a brighter future, I sold off the Pentium system. When I heard the news recently, I got quite depressed. You see, with WinUAE already installed on the Pentium, I already HAD what the future seems to hold for my beloved Amiga. I feel betrayed by empty words. OS3.5 anyone? I applaud companies like phase 5 for doing their part to ensure the continuation of the 680x0 processor, but just how long can they feed our dreams?

I mean, the PPC board costs three times what it costs to own a fully loaded Pentium 233 compatible system. Let's see... buy one board for $1,500 for an ageing machine or get a new, complete system that can easily emulate and run my old, tired software for a third of the cost. Not a hard choice, but a hard one to swallow all the same. Even Joe Torre suggests we should "keep the Amiga in our hearts", as if he has already come to conclusion that within a year or two the Amiga as we know it will no longer exist.

Goodbye Amiga, the best graphics, multi-tasking, mod making, etc, machine.

Jonathan Hodges
Crackerjak@megsinet.com

No, quite a few people have expressed more or less the same sentiments, but I suspect these are just initial reactions to Amiga Inc.'s announcements which we commented on in the last issue. The NEW Amiga is NOT a PC. The OS for the new Amiga is going to be developed on an Intel processor until the new hardware is available. There will be a new version of Workbench for the PPC. The new OS will not be just a WB3 emulation for the current Amigas.

PC NEWS

After seeing your comments about Bill Gates in your June issue, regarding Windows 98 crashing on him, I felt compelled to tell you about Microsoft's plans for the future.

First up is the news that Microsoft are to scrap the ageing AVI (Audio Video Interleaved) file format and replace it with two new formats, ASF (Advanced Streaming Format) and AAF (Advanced Authoring Format).

ASF will handle streaming media on the Internet while AAF will allow the interchange of media between AAF compliant applications such as *Adobe Premiere* and *Photoshop*. The AVI format will be phased out by early next year.

The second piece of news is that both Intel and Microsoft are planning to phase out the use of ISA sound card devices in all PCs by replacing them with PCI cards instead. The main reason for this is support for 3D Audio and Dolby Surround Sound, which is the true hi-fi quality sound supported by Windows 98 and the DVD format.

Of course, this may not actually damage Amiga companies (yet) but it is something that should be taken into consideration with regard to future designs or developments.

I'd also like you to thank John Kennedy for his advice in Workbench (*AF111*) about Anim 5 files. His words of wisdom have helped me to be much more creative. Finally, is it okay to photocopy the free Reader Ads form and what is the limit on the amount of forms that may be sent?

Chris Hindley
Deeside

Thanks for the information. I don't really think the introduction of two new file formats is anything to be concerned with, as I'm sure these can be supported by the relevant Amiga software when the standards are published.

As for the move to PCI for soundcards, that is more likely to be dictated by the aims and ambitions of the people who actually manufacture them. I hope you continue to find the magazine a good source of advice.



Bill Gates. Some people claim he's in league with the Devil, but he's probably a very nice chap, really. No, really.

SHOWTIME

What a great show, eh? I saw all you guys there. So what was best? Was it the Novotel? It really is a good venue and even the security men managed to smile at you and be friendly while remaining reassuringly vigilant. Was it the demonstrations or perhaps the bargains?

For my money, it was the seminars and presentations. I'm not particularly well informed when it comes to computers and programming, but the couple of seminars I went to were very interesting and gave me an insight into some of the thinking in the Amiga world and some of the problems that programmers are facing now that development is on the move again.

Of course, I had to wait until I got my programme at the door to find out what talks were planned. Maybe next time, some publication or other (like

BASIC PROGRAMMING

Firstly, I feel that I must congratulate you on a rather spiffingly excellent magazine. Well done. Next, I feel that your wisdom, beyond any that I have witnessed previously, despite many travels across the globe, is to be the subject of relatively non-taxing questions from a mere mortal such as I.

I have just started gaining an interest in programming (specifically for games) and wonder what is best for a novice like me. I have some (but quite little) knowledge of the rather PC *QBasic*, but I'm more interested in programming with my Amiga.

My second question concerns the upgrading of my computer, which is rather ancient. I have an A600 with a hard drive and a 1Mb RAM upgrade and not much else. My dad is trying to persuade me to upgrade this present system, but I turn to you for educated, wizened and almost poetically philosophical guidance on my not really taxing question.

Is it worth it to get a CD-ROM drive as well and, if so, what's a decent one to get, what speed, etc? I trust that your advice is good and will try to follow truly.

Nick Minns
Darlington



Blitz Basic is a great programming language for beginners. Check out our long term review of *Ultimate Blitz CD* in *AF110*.

***Blitz Basic* is the best version of Basic for the Amiga, and if you are new to programming it would probably be the ideal start. Although no longer in development, there is a lot of developer material available for Blitz. Consider buying the Ultimate Blitz CD, available from Weird Science. Depending on the type of game you wish to develop, it may be well worth starting off with C. It isn't difficult to learn (especially if your head isn't full of the junk that Basic teaches you) and is more portable.**

There isn't an awful lot you can do to upgrade an A600. You would be better off buying a new machine. Consider getting a second hand A1200 which you can install in a tower. And PLEASE make sure you address such queries to Workbench in future.

yours?) could print details in advance so punters have a better idea about which day they should attend. You may even get some folk going on both days.



The World of Amiga show at the Hammersmith Novotel had plenty to offer all Amigans, hence the great crowds it attracted.

At least the future looks reasonably bright now, although some people I spoke to were a bit dismayed at the thought of the Amiga becoming just another PC expansion card, particularly those interested in selling me hardware.

Can an Amiga community, market or concept exist without there being an Amiga-specific machine somewhere out there? Surely it takes more than an operating system to grab the imagination of anyone other than the most dedicated programmers.

Not that I am against the PC Amiga expansion card. It could be a very useful ploy. As the chap on the Siamese stand said, it could be the thing that brings the Amiga to the attention of all those PC and Mac owners and persuades them to return to using a really useful computer again. But there has to be an Amiga-specific machine around somewhere so I hope those rumours about Amiga Inc. restricting the licensing of Workbench four and above are just that – rumours.

If people like phase 5 and Haage & Partner are assured of being able to continue their developments well into the future, then the Amiga world will indeed remain an exciting place.

Ian Hearns
via email

In answer to your first point, we would love to be able to give you advanced notice of all the events to look forward to at the WOA show, but unfortunately it simply wasn't possible this year because much of it was organised at the last moment. In order to have stuff in the magazine out before the show, we need at least three week's notice, and the timetable of seminars simply wasn't finalised then. I hope you found the rest of our show guide useful though.

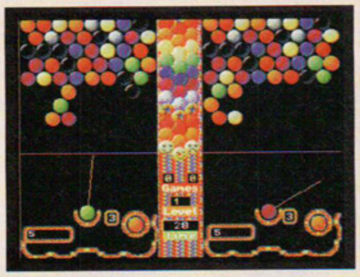
I am afraid you seem to have missed the point of the whole Gateway announcement, which may possibly be because you have inadvertently given credence to some of the ill-informed rumours and half-reported facts circulating in the Amiga community.

- *FACT: The Bridge system is going to be based on an Intel processor.*
- *FACT: THIS IS NOT THE NEW AMIGA. It is a platform enabling the development of the OS and software until the new hardware is developed.*
- *FACT: Amiga Inc intend to license the new Amiga technology – that is how they will make their money.*

Anybody who tells you anything else is either misinformed or simply lying. The backwards compatibility offered on the Bridge system will be in the form of an "Amiga on a card". THIS IS NOT THE NEW AMIGA EITHER! Unfortunately, in situations like this, there are far too many people with opinions based on things they have heard that may have been said by some distant relation who works for Gateway. Basically, most of these people probably know less than you and most of them weren't even at the show. So, don't believe them, believe us.

Snippets:

Thank you for the very kind review of my game *Burst a Marble* in issue 110's reader's games. It was a great encouragement for me as a programmer to have a positive response. It has encouraged me to produce another game, a two player *Dune II*-style game. There is a screen shot on of it on my Website at: http://www.geocities.com/capecanaveral/5849/bam.html



***Burst a Marble*, a jolly addictive and fine game. Check out the review in *AF110*.**

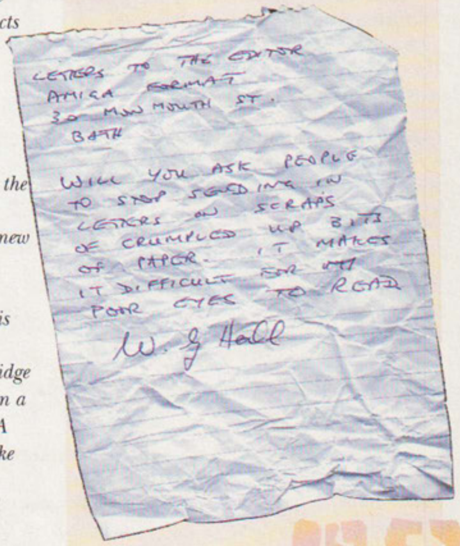
Thank you for the exposure that the review gave. I'm sure many other Amiga programmers appreciate Readers Games bringing their games to such a wide audience.

I have just finished *Burst a Marble v7*, with a three player mode and an enhanced one player mode and a level designer. If anyone is interested in supporting Amiga programmers and wants to get a hold of my two player *Dune II* game then they can contact me at the above web address.

Thank you again and all the best with the mag.

David Ball
via email

Thanks for submitting your work to us in the first place. I hope you get a lot of response for both of your projects and we'll look forward to seeing more of your work in the future.



I'll see If I can get Colin to iron them out a bit for your ease of reading.



AF Reader Ads

The best place to buy, sell and swap your hardware and software in the Amiga community… for free!

FOR SALE

A1200, 10Mb with new ProGrab digitiser 24RT Plus, Workbench, Deluxe Paint, Wordworth, games. No monitor. £100. ☎ Gabriele 0181 3480751 (evenings), 0171 8137372 (day).

A4000/30 FPU 14Mb RAM, CD-ROM, KRP Editor, GVP Genlock, ProGrab 24, 450Mb HD, 1.5Gb HD, Picasso IV board, Opal board, ImageFX 2.0, MorphPlus, lots of software, £650. ☎ 01643 702335.

External 33.6 modem, Net/Web software. Classic Squirrel interface, 2 internal SCSI CD-ROMs, 4x/8x. 44 pin 2.5" IDE cable. All open to offers, best secures. ☎ 01436 678262.

2x SCSI external CD-ROM with SCSI lead and 11 CDs. £100. ☎ 0121 7444727.

A1200 with '020 accelerator and 4Mb extra RAM. CD drive, CD32 compatible. Additional 3.5" floppy drive and colour monitor. Joystick, controls, loads of games, software and manuals. £250 ono. ☎ 0191 2657980.

Viper Mk 2 68030 28MHz accelerator with FPU and SIMM, only £30. ☎ 0161 7247348 (ask for Mark).

ABTA, Xenon II, ABSE, Syndicate, Chaos Engine, Blasteroids, War in the Gulf, AB3D, Worlds at War, Uridium 2, Cannon Fodder, Clockwiser, Mean Arenas, ABII, Civilization, Stormlord, E-Motion, Elite, Dyna-Blaster, Populous, Welltris. ☎ 01709 814926.

Amiga 4000/40, 1.5Gb hard drive, multisync monitor, 14Mb RAM, Lightwave, ImageFX, Brilliance, Wordworth, too much software to mention. Must go. £800 ono. ☎ 01279 722302.

Amiga magazines, 1993 –96, various titles, most with coverdisks, over 90 issues, £30. Buyer collects (Bristol). ☎ 0117 9245226.

A500+, GVP A530 accelerator, 120Mb HD, 2Mb chip RAM, 8 Mb fast RAM, Star LC24-20 printer, hardware, PC emulator, Pace modem, monitor, sound sampler, loads of software and more. £500 ono. ☎ Chris 0973 541290.

Amiga 1200, 18Mb, Blizzard 1230 Mk IV 50MHz, 4x CD-ROM, 170Mb HD, Amiga monitor, external drive, all leads and manuals, tons of mag CDs and games. £170 ono. ☎ Allen 01702 290833 (evenings).

Onescapee £19, The Strangers £15, Lemmings, Crystal Kingdom Dizzy, Chicago 90 £5 each, Minskies Abduction £6, Curse of Enchantia, Legends, Sabre Team AGA, Operation Stealth, Police Quest 2 £8 each. ☎ 0161 3049471.

Graphic adventure games, including Monkey Island 1, Lure of the Temptress, Fascination, Curse of Enchantia, Nippon Safes and lots more games available. ☎ Mike 01784 885914.

Philips CM8833 Mk II colour monitor. Excellent for Amiga, game consoles, VCR, etc. In good condition, comes with RGB lead for Amiga or SNES (you choose which). £45. ☎ Mark 01380 818023.

PC-Task PC emulator for Amiga. Unregistered. Cost £69.99, yours for £49.99. A1200 with HD plus paint, anim, text, titling programs, £100. ☎ 0113 2930758.

Attention Amiga users! I will buy your Blizzard '030/'040/'060 accelerator boards for £89/£229/£319. Send your cards by cash on delivery to: V. Kosztadinovszki, 12 Szvorenyi Street, Eger, H-3300.

BUY AND SELL HARDWARE & SOFTWARE… FOR FREE

The editor reserves the right to refuse or amend ads.
We accept no responsibility for typographical errors or losses arising from the use of this service.
Trade ads, including PD advertising will not be accepted.

Name: ....

Address: (Not for publication) ....

....

....

..................................**Postcode**....................................

Telephone: ....**Date:**..................................

Please tick to show required heading

☐ For Sale ☐ Wanted ☐ Personal ☐ User Groups

Return to:
Reader Ads • Amiga Format • 30 Monmouth Street
Bath • BA1 2BW

Unfortunately we cannot guarantee insertion in a particular issue.
I have read and understood the conditions for the inclusion of my ad

Signature:..

Use one space for each word. Only the words in this section will be printed

Free!

Amiga Quake. Sell for £15 or swap for Genetic Species. ☎ 01768 885287.

Games, all boxed originals. Addams Family, Desert Strike, Magic Boy, European Champs, Planetfall, Enchanter, Hook, War in the Gulf. ☎ Richard 01834 813800.

A1200 HD, 170Mb, 10Mb RAM, Blizzard 1230Mk IV 50MHz, FPU 50MHz Blizzard SCSI board, CD-ROM, extra floppy, high density, Amiga 1438S monitor, joystick, many games, some CDs. Loads of software, 300+ disks, inkjet Olivetti printer, all for £700. ☎ 01980 602868 (8am – 5pm).

Cinema 4D v3. Boxed, perfect condition, includes disks, manual, box, unused registration card. £100 plus postage. ☎ 0121 7470540 after 7pm or email rom@amideu.u-net.com.

Miracle midi keyboard and piano tutor system, £120 ono. Technosound Turbo sampler and software, £15. Rombo Vidi-12 image capture system, £25. Manuals and original packaging for all items. ☎ 01733 756401.

Catweasel and clockport adaptor (A1200), £25. PC HD disk drive, £3. Games, £2.50 to £5. '030 card in need of attention, £10. 4Mb SIMM, £8. ☎ 01908 676536.

A600, 2Mb, mint. Will sell for any reasonable offer or swap for a printer. ☎ Jeff 0191 5108230.

GVP 1230 Turbo+ accelerator card 40MHz 68030 processor, 4Mb fast RAM, 40MHz FPU, two SIMM sockets, £95. 120Mb Maxtor 2.5" hard drive with software and cables, £50. ☎ 0161 3049471.

Cheat disk with over 1,000 cheats. Full version, £3. David Lerwill, 25 Dorset Road, Leeds, W. Yorks, LS8 3QL. ☎ 0113 2174121 after 6pm.

A1200 Desktop Magic pack, 68040/25, 250Mb HD, 6Mb RAM, 2x CD-ROM, extra floppy, 200W PSU, 8833 monitor, loads of software, games, Epic Encyclopedia, Learning Curve, All mags and AFCDs. £600 ono for quick sale. ☎ Paul 01933 389833.

Tandburg SCSI tape streamer (internal). Uses Amiback/Quarterback. Includes sixteen 250Mb tapes. Sale due to Zip purchase. Excellent condition. £80. ☎ Mark 01606 863217 (evenings).

A1200, 6Mb RAM, 170Mb HD, external floppy, lots of games. £250 ono. 0181 5958288 or 0966 398172 (evenings or weekends only).

WANTED

Emulator, PC-Task 4.0/4.3 for Amiga 4000/30 owner. ☎ 01922 693558.

CD-ROM with C64 software in D64 form (image disk). Will pay up to £10 or same value in your currency. Email hibisch@hotmail.com.

Has anyone got a manual for Combat Classics 1? I bought a second hand copy and no paperwork was present. Will pay postage. ☎ 01476 401298.

Printer driver for Olivetti DM124C. Also manual for same. Will cover all postage costs if anybody can help. ☎ Eddie 01733 320490 (evenings).

Desperately wanted: full version of Piles 'o' Tiles. Programmer has moved to unknown address. If you can help me, please contact: Steven Pestridge, 37 Jefferson Road, Sheerness, Kent, ME12 2PU.

Drivers disk for Wordworth 7 and Turboprint 6. ☎ 01268 583814 (evenings, ask for Ray). Both of these urgently needed.

Help! I am 15 and have accidentally deleted my copy of DOpus 5.0 from my hard disk and my original disks are corrupt. Please can a kind-hearted Amigan help me? ☎ Paul 01484 644692.

A1200 Accelerator, 8Mb RAM and '030 a must. Swap for A600 '030 and 4Mb accelerator worth £115. Ross Whiteford, Cordon Mains, Abernethy, Perthshire, Scotland, PH2 9LN.

Copy of BSB book, Mastering Amiga AMOS, preferably with support disk (or other AMOS manuals). D. Barugh, 27 Toronto Crescent, Middlesbrough, TS4 2LZ. ☎ 01642 272285.

Floppy disk version of Syd Mead's Maelstrom for the Amiga. Robert Parkins, 40 The Rundels, Thundersley, Essex, SS7 3QJ.

Project X. Looking for disk 1 as mine is dead. Can anyone help? ☎ Kevin 01352 757732 (after 6pm, Monday to Friday).

Amiga standard case (shell) wanted, and Sabre Team CD. ☎ John 01900 63568.

Adventure games for A500 and A1200. Also instructions for Cruise for a Corpse, and hard drive for A500. ☎ 01702 316146 (after 6.30pm).

PERSONAL

Also see the AmigaAngels document on our CD.

Contacts wanted for swapping tips and ideas and games. Contact Mr. Garry Emery, 3 Scott Avenue, St. Budeaux, Plymouth, Devon, PL5 1HQ or ☎ 01752 361254.

A programmer from Egypt needs friends sharing AMOS and Blitz Basic programming. Contact Maher Fahmy Farag, Al Thawra Street, 22718, Al Behira, Egypt.

Contacts wanted for swapping tips and ideas and games. Contact Mr. Garry Emery, 3 Scott Avenue, St. Budeaux, Plymouth, Devon, PL5 1HQ or ☎ 01752 361254.

Absolute beginner needs help with startup sequences, icons. Any help at all with 80Mb hard drive, i.e. changing colours, fonts, also help with partitioning appreciated. ☎ Paul Glossop 0161 7279516.

Amiga penpal wanted. Preferred age 14 – 16, male/female. I have an A1200 '030. Mark Wadham, 25 Roslyn Close, St. Austell, Cornwall, PL25 3UN.

Amiga helpline, send two 20p pieces along with your questions, name and address to: Amiga Helpline, G. Station St, Wakefield, West Yorks, WF1 5AF.

Contact with amateur games programmers in the West Sussex area wanted to turn our original Amiga concepts into Amiga originated games. No time wasters please. ☎ Dave 01243 864596 or 0961 985925 (mobile).

A1200/500 contacts wanted to swap software and books. Write to: George Lederer, 3/b Dunaduld Street, 1212 Budapest, Hungary.

Amiga contacts wanted to swap ideas and talk Amiga. Write or send disk to: Jury Mikheev, Naumova 30-1, Kirensk 2, Izkutskaya, OBL 666710, Russia.

I would like to thank the people who emailed me following my advert (April issue). Sorry, I haven't had the time to reply yet! Email chindley@usa.net.

Amiga novice needs old hand for guidance on many problems. Not looking for charity, willing to give in return, just what TBA. ☎ Roger 01928 718504 (after 6pm).

USER GROUPS

Send us details of your local user group and your ad will be printed for three issues.

New user group starting up in Bodmin, Newquay, St. Austell and Truro. ☎ Clive on 01726 822061 after 7.30pm on weekdays or at any time on weekends.

XCAD users group want to attract as many XCAD users as possible. Interested in joining and receiving the "XCAD User" newsletter and tutorials? ☎ Tony 01662 250320 after 6pm.

Are you interested in helping other Amiga users? If you want to join the Amiga free helpline, ☎ Terry 01709 814296.

Power Amiga – New Amiga group in Portsmouth. Internet, video graphics, scanning, digitising, word processing, desktop publishing, animations, CD-ROM, games, support, etc. Monthly newsletter. ☎ Richard 01705 829541.

Edinburgh Amiga Club. Meets every second Tuesday at Gilmerton Miners Welfare Club, 7pm – 11pm. Tutorials for beginners, information at all levels, hardware and software help. Email jim@eac.ednet.co.uk.

Maidenhead Computer Club. One of Berkshire's longest established computer clubs, new members welcome. Meet every second Thursday of the month, 7.45pm, Community Centre, Highfield Lane, Cox Green, Maidenhead. ☎ Alan Everett 0118 9453420.

Coventry and Warwickshire Commodore Computer Club. Meet first Wednesday of every month at Earlsdon Methodist Church, Coventry, 8pm – 10pm. ☎ Will Light 01203 413511, Ed Freeman 01788 812138. Email istowe@coventry.ac.uk.

Deal Amiga Club. Meet every Friday, 7pm – 11pm, St. Johns Ambulance Hall, Mill Hill, Deal. ☎ 01304 367992/379857 or email amiga.club@centrenet.co.uk.

Amiga Design Workshop, UK. New group in Kent. Anyone in the SE welcome. Monthly newsletter, run by readers, database, stored lists of animations, art, music, etc which are sent to software houses/Websites, competitions, discounts on Amiga Energy mag. Write to: 18 Gull Close, Roundshaw, Wallington, Surrey, SM6 9EU.

The Gallery

ON THIS MONTH'S CD

AFCD29:-ReaderStuff-/-Gallery-

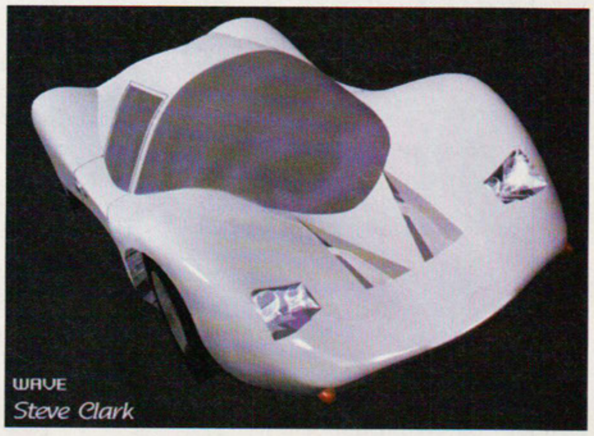
There's a definite flying theme this month as **Ben Vost** presents the largest selection of Amiga artwork around.



Ground, Conan & Wave
All by Steve Clark
Steve's grasp of the software at his disposal is obvious, and having a faster machine (he has a Cyberstorm Mk II '060 in his A4000T) means that he can tweak his models more carefully, resulting in the gloriously curvy Wave and the beautiful Conan.

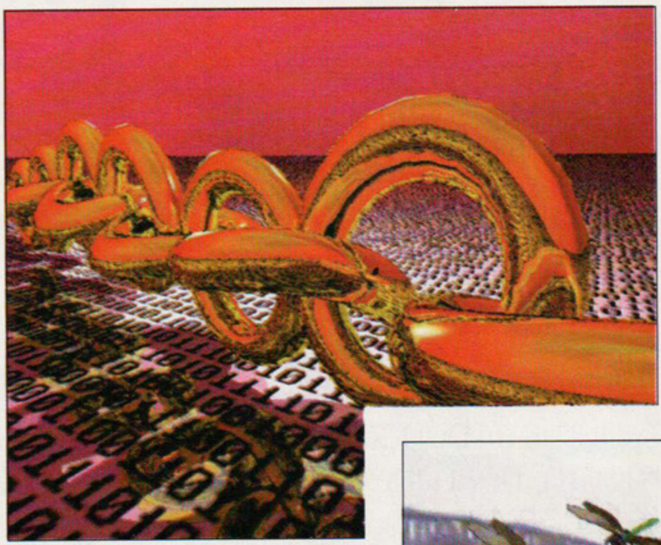
£50 AF Winner!







Masterpiece by Samuel Brookes
Out of Samuel's cheesy joke pictures. We picked this one as being the most colourful. Keep 'em coming Sam, you'll do a really funny one soon!



Chain of Command by Robert Simmonds
It's a bit of a computer 3D cliché to have something reflective sitting on a shiny floor, but we liked the composition of this one a lot. Notice how the shapes involved are still only simple primitives but that the image is much better than the ball-bearing on the chequered floor.

Insectica by David Crane
David uses a digital camera to capture the backgrounds on which he overlays his 3D creations. These are all very nice, but you should watch where the light comes from in the scene and make sure that your models are lit similarly so that they blend in more.

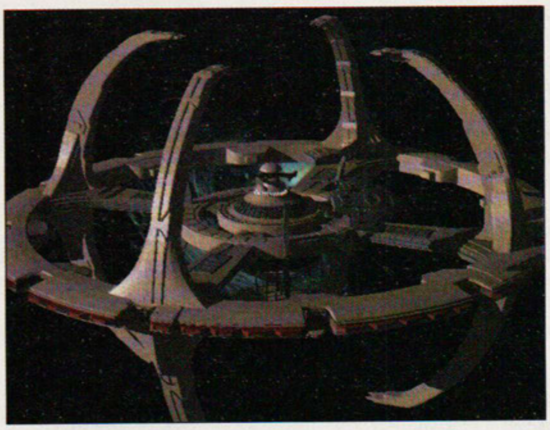


kunst7bl by Piet Driessen
Piet seems firmly based in the abstract if his pictures are anything to go by. We liked the colours used in this one and the obvious reliance on drawing rather than preset effects to get the image desired.

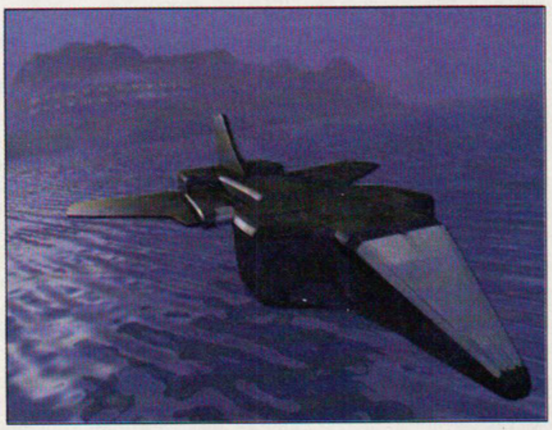




Tennis-24 by Nick Milligan
I have the feeling that Nick is obsessed with Lego. His lego bee was in the gallery a couple of months ago and now he's sent us this lego tennis match. It's also very nice to see that Nick's sent us an image suitable for print, not just for the screen, by rendering at a large size.



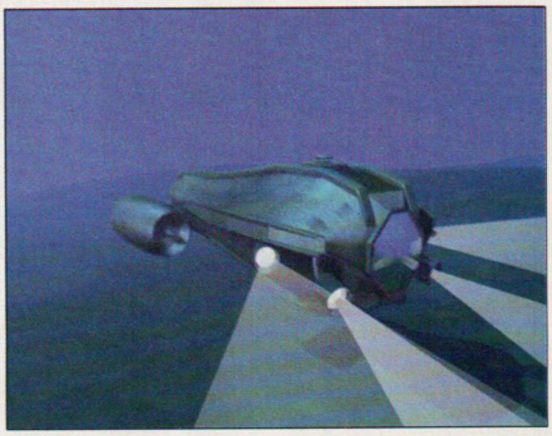
◄ ds9pic001 by David Hinchcliffe
It's another *Deep Space 9* render using a model that David doesn't say he did himself, so it's perhaps Dave Charnow's one? Anyway, although this is a nice picture, it wouldn't have won the Gallery because we want something a bit more original, and spaceship models from TV shows and movies are two a penny these days.



Spaceship ► & Submarine Both by Adam Cope
These pictures are a bit odd. Submarine has a beautifully modelled object in it but the composition isn't great, whereas Spaceship is beautifully composed but the modelling isn't so hot (particularly where the cockpit comes down to the nose of the ship). Other than that, these are two images which again show off the power of *Imagine 4*.



◄ Bird2 by Colin Meggit
It's a shame Colin hasn't included a readme file to say what these pictures are about, how he created them or any other information. Maybe next time, eh Colin?



Serious disk





AMIGA FORMAT

A bumper bonanza of eleven excellent Amiga utilities this month, headlined by the complete version of **Iconian**, the icon editor. **Dave Taylor** gives you a guided tour.

Iconian 2.98t

Those of you who have been following our series on creating your own icons will know about *Iconian*. It's one of the Amiga's best known icon editors and it makes life much easier when you want to create a unique icon and you're not the best artist in the world.

It does this by bringing the power of a paint package to the icon painting arena, but before you can use the package you'll need to install it. The program uses the standard installer, so it couldn't be simpler.

ICON IF YOU CAN

Iconian is actually very easy to get to grips with and it should be intuitive for anyone who's used a paint package. See our guide to the interface to find out how to get started. You must also take a tour of the menus because many of *Iconian*'s advanced editing features are only available from there:

FILE MENU: The usual file options, including New, Clear and Restore. However, this menu also contains options that control parts of the icon that can't be done from the main interface. This includes the Buffer Size which is the height and width of the icon. There is also a Highlight item with sub-menus for the different ways in which an icon is selected when you click on it, such as whether it uses the same picture but different colours or swaps to a different image.

There is also the vital Icon Type menu item, with a sub-menu to allow you to choose what type of icon it is you are editing. You cannot simply draw an icon and give it the same name as the file you want to use it with – it has to be an appropriate type. A tick tells you whether you have Disk, Drawer, Tool, Project, Trashcan, Device, Kick and AppIcon. (The Project type is the type you require for data files with tooltypes and a Default Tool.) There's also a Save mode for choosing how to save the icon in the most space efficient manner. Some of the other menu items include Iconify and About.

EDIT MENU: Many of the cut/paste features are available on screen, but you'll also see there are two items near the bottom that are unique. These are Exchange, which will transpose the images from selected and unselected icon state, and Paste from Other, which will copy the image from the selected or unselected icon state (depending which is the "other") into the workspace.

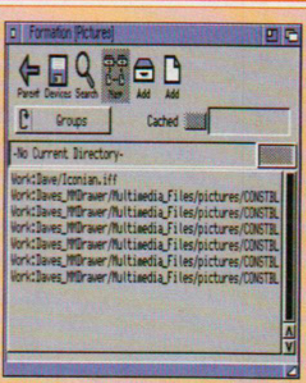
IMAGE: This menu is one of the most important as it offers features that you don't get in anything other than an advanced icon editor. These are not available from the main interface.

There is a Load menu item that is a

OTHER PROGRAMS

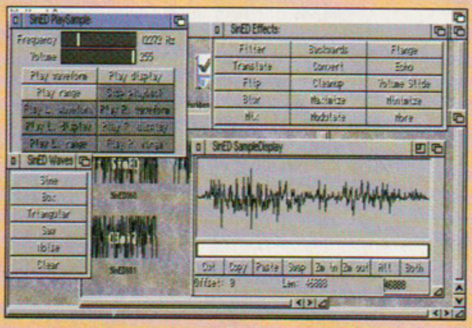
As well as the fine *Iconian* package, there are another ten utilities! This starts with the *Tooltype Manager* program, which is a new version we've included to complement the *Iconian* package. It allows you even easier and more advanced control over the tooltypes of icons so you can set up defaults for icons and copy parameters from other icons.

There's *ButtonBank*, a simple launcher that uses icons to show the programs. It's easy to use and when the default settings open up, you can edit an icon by right clicking on it. Different programs can be dropped onto the requestor to add them. *Dayprogs* and *Sizeprogs* are a set of CLI commands that can copy, move or delete files depending on their size or date stamp. *Envelope* is a simple utility that lets you use a database of addresses and print them out without having to use a full word processor. *Formation* is one of the most interesting utilities. It allows you to create groups and add programs or files into them. You can then launch them from the Formation UI. The great thing is that you can set up groups according to subjects, but the entries can be from different directories, so it's like a filing cabinet (similar to directory structure) except the contents can be stored in different places. Also, you can have the same file in different groups.



Formation is an excellent program that can store files and directories in a virtual filing cabinet. It's like having an extra file system.

***SinED* is a program for music fanatics, claiming to be the most powerful Shareware sample editor ever released. You can certainly apply a lot of effects.**



An extremely powerful sample editor, you can apply effects as well as editing the properties of the sample.

***Skimmer* is a fascinating utility that scans your drive to find out which libraries in your Libs: are actually used. This takes a while, but if your Libs: has got out of control then this is excellent. Register and it can even be used to manage the libs: for you.**

***Swipe* is a CLI command that deletes the files and drawers and also any assign that would otherwise prohibit its deletion. *WarpWB* is a small hack that can keep your Workbench less cluttered by closing a parent folder as you open its child. The amount of space available here can't possibly do justice to all of these programs, so check them out for yourself and read the documentation that comes with each one.**

ICONIAN'S INTERFACE EXPLAINED

Here is an at-a-glance guide to the interface for *Iconian*:

1 **As well as the tools available directly from the interface, there are also many menu items that perform additional functions.**

2 **The project window which shows an overview of the icon you are working on. Click on the unselected or selected icon type to make it appear in the workspace.**

3 **The preview of the whole icon as it would appear when it has not been selected.**

4 **The preview of the whole icon as it would appear when it has been selected.**

5 **This allows you to select the tool type to be used. Most of the common paint tools are here, from filled boxes and continuous lines to more unique tools like the raised icon effect.**

6 **The workspace. This is the part of the program where you actually edit the physical icon. Use the tools down the side to decide how you will edit it. To cycle through to the next tool in the menu, click on the left of the tools' icons, but to see the pop-up menu, click and hold down on the main part of the tool icon.**

7 **This is the colour for the left mouse button.**

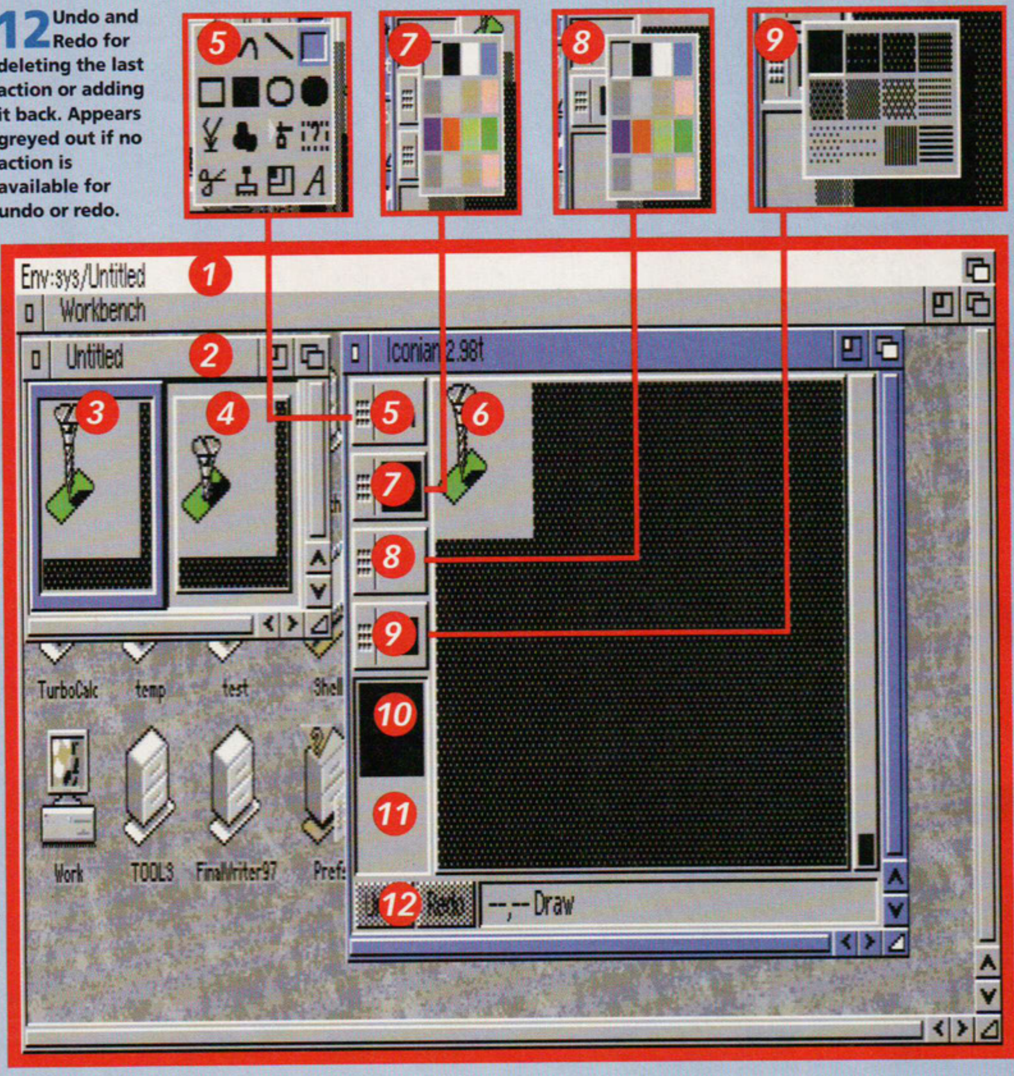
8 **This is the colour for the right mouse button.**

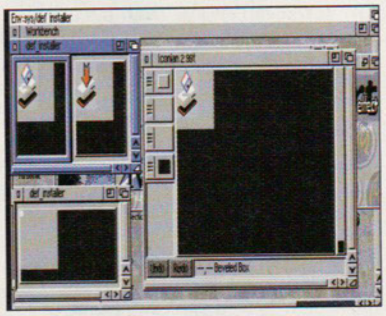
9 **Chooses the dither type, whether the fill should be solid or graduated.**

10 **Selected colour for the left mouse button.**

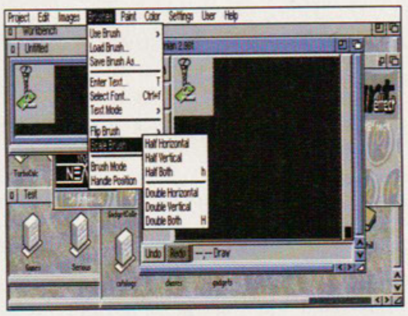
11 **Selected colour for the right mouse button.**

12 **Undo and Redo for deleting the last action or adding it back. Appears greyed out if no action is available for undo or redo.**





The Iconian program gives you access to many of the features directly on the screen, but there are many extra features only accessible from the menus.



Open up your icons and edit them to show off your artistic flair. *NewIcons* are even shown as both the real and default one, for those of you without *NewIcons* installed.

sub-menu. From this you can load a bitmap picture into the workspace. You can also load in a picture and its palette. You can load in a Normal or Selected icon image from an existing icon (or both) or you can re-load the default images. From here you can also save the icon out as a picture.

There is another sub-menu for moving the image within the workspace. The Auto Topleft item will move the image up to the top left so you crop the icon and make it as small as possible.

You can also move the image through the two dimensions. There is a Flip Image menu item with a sub menu for flipping the entire image either horizontally or vertically. Similarly, the Scale Image has a sub-menu to either half or double the horizontal or vertical. Finally, there is a re-colour option so you can increase or decrease the icon's colour depth.

BRUSHES: This allows you to change the type of brush, from round to filled or hollow to square. You can also choose Enter Text to add text into the buffer to apply to the image. The Select Font menu item obviously chooses the font from Fonts: for this. You can also choose Flip Brush and Scale Brush to perform the same operations as in the Image menu to the brush.

There's also the Handle Position with sub-menu to decide where the handle is on the brush, as it may not always be convenient to have the brush obscured by crosshairs in the middle.

PAINT: This allows you to change the paint mode type in the same way as the tools' icons on the main interface. You can also change the Bevel Box Type, which is the way in which the raised icon effect is applied (see interface guide). There is also the choice of size for the airbrush, if you use that tool.

COLOR: Control over the palette is accessed here. This can load palettes and should be used in conjunction with the palette options from the Image menu.

SETTINGS: As well as allowing you to change all the options for the program, from Screenmode to Font, it also has a sub-menu with other Icon Information and Tooltypes, which are very important parts of the icon. These control what the icon actually does when a user double clicks on it (for example, which program is used to open the file). See our Icon tutorial for more information.

USER: Define and play back macros to make repetitive tasks quicker and to process multiple icons in the same way.

HELP: Access to the help file.



Games disk

AMIGA FORMAT



A hat trick for the **Amiga Format** games disk this month as it scores three full games. **Dave Taylor** lets you know the score.

501

Not a pair of jeans, but instead the name of this complete darts simulation. Yes, no need to pop down the local now for a swift game of arrows. Just pop on your Amiga and indulge in the great British tradition.

The game allows you to play 501, 301 or even Round the Clock. In each case, the aim is to reduce your score down to zero before all the other players. If you don't already know them, here's a quick guide to the rules before we go into the control system.

Each player has three darts and takes it in turns to throw their set. The numbers where each dart hits are added together to give a score for the turn. There are three sets of rings on the board: one around the edge (anything landing outside this ring is ignored), one halfway into the board and one around the centre circle. Darts landing in the first ring score double the number of the zone and ones in the next ring in score tripe the number.

> The highest score possible with a single set of darts is 180 – all three darts in the midpoint ring in the 20 zone.

Anywhere in the inner ring scores 25 and hitting the bullseye (the centre point) scores 50. The highest score possible with a single set of darts is 180 – all three darts in the midpoint ring in the 20 zone. When your score starts getting towards zero near the end of the game, you must finish by hitting a double (outside ring).

If you accidentally score more than the number remaining the score is discounted, and if you accidentally reduce the number to one, so you can't finish on a double, your score is left at two and you simply have to hit the double one to finish.

If your score remaining is 50 you can also end on a bullseye. These are the rules for either 501 or 301, but Round the Clock is a much simpler game. All you need to do is get a single dart in each number in order from one to twenty in numerical order. This is played against the clock, not against the Amiga or another player.

LET 'EM FLY

When the game loads you'll see a main menu with six options. To change them, simply click on the menu item and the choices will cycle through. The first one determines the level of player you are.

If you are playing against the Amiga, this doesn't make it any better at the game. Instead it increases the difficulty of making a shot. When you play the game you control a cross hair with the mouse in order to aim your darts. To simulate the unsteadiness of a hand, the cross hairs move around slightly, juddering. You need to react when the cross hairs are exactly where you want them to be and press the left button to throw your dart.

The difficulty level set here determines how much the cross hair judders when you are attempting to throw. You can choose from Beginner (lowest), Amateur and Professional (highest). If you choose Professional you enter into a league where you play against all eleven Amiga players.

The next menu, Game, decides which of the three games you want to play. Both 501 and 301 can be played against a friend or against the Amiga. Round the Clock is single player timed.

The next two menus decide the length of the game and refer only to the 501 and 301 games. You can change the number of sets in a match (how

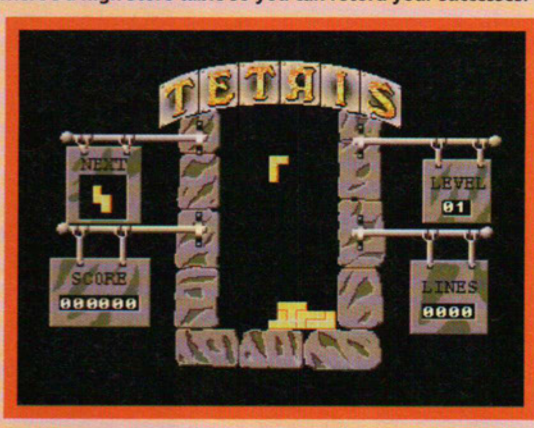


The dart board never looks this clear when you're playing after a few pints in the pub.

TETRISPRO

This is a *Tetris* clone that requires you to fill in the lines by rotating the falling shapes using the fire button so you can fit them together. Each line you complete reveals another part of a picture behind the wall. You need to complete the picture to move onto the next level.

Along the way, different bonus blocks will fall. If you use these to complete a line then you'll get the special bonus/feature as shown on the face of the falling block. There's a high score table so you can record your successes.



It's *Tetris* so you're guaranteed to be addicted within minutes.

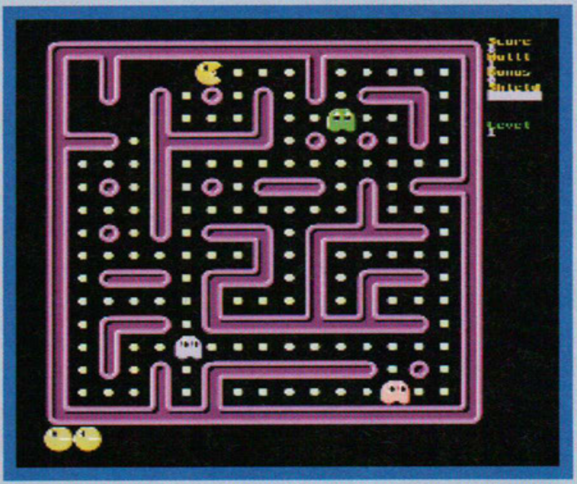
PLAYPAC

***PlayPac* is a simple Pacman clone with random levels and a number of options for customising the game. As always, the idea is to move your character around the maze on the screen, eating all the dots until the maze is empty. Trying to stop you are the ghosts who will eat up your shield and take one of your lives if you collide with them. If a ghost spots you it will chase you, but you can outrun and lose them. Bonuses will appear along the way and eating these will either give you bonus points, restore your shield or even give you the chance to attack the ghosts. This powerpill changes the colour of the ghosts so you know you can eat them and, if you do, they will disappear and return to the middle of the maze and start out again. Eating ghosts scores points, but remember that the effect is time limited so the special pill may wear off before you catch a ghost.**

You can see when the time is coming up as the ghosts will flash. In most Pacman games there is always a powerpill on a level, but with *PlayPac* you have to wait for one to appear, so making sure you avoid the ghosts is more important than ever. When the game starts you first choose your screen resolution (low-res is the best for full screen). You then arrive at the title screen where you can press the Help key to go to the Options screen. The Options screen contains a set of sliders. These set the width of the maze and the height of the maze walls, the number of lives you have and the number of ghosts chasing you. Under these are cycling menus to choose certain game options. The first decides whether to add extra ghosts chasing you as you complete levels. The next chooses whether to enable Blackouts, which is where one of the bonuses will temporarily turn out the lights so you can't see the maze and avoiding the ghosts becomes very difficult! Then there is the speed of movement and under this the method of control. By default you use the keyboard but most people will want to change this to joystick.

Finally, there are two tick boxes: one to save the high score table and one to enable your autoshield (the shield provides some protection against ghosts, but reduces while it is turned on – with manual control you need to turn it on when a ghost threatens).

When you have the settings as you want, you can save them. You can then choose F1 or F2 for a single player or two player game. Two players compete on the same maze to score the most points.



PlayPac is very much like other Pacman clones, but bonuses and powerpills appear randomly, as do the levels. There's also a two player game.

many times you play the same player to win that match). The number of legs determines how many matches are played to win the game.

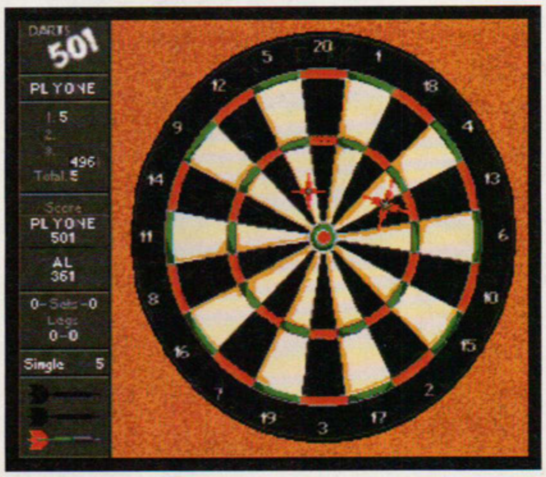
The final two options are simply for determining if Player One and Player Two are human or Amiga players.

At the bottom of the menu you have the names of the players, their colours and the Start button. You can click on the name and type in a new name so you don't have to be referred to as Player One. The player colours, which refer to the colour of your darts and the colour of the Amiga players, can also be changed by clicking on them.

Press the Start button and if you are playing the computer, an opponent will be picked for you at random. Their skill level will then be shown in a bar – each player has a different ability level.

If you want to quit a game halfway through, press the Escape button. Finally, if you want a tip on which number to aim for, press the T button.

This complete game has been given away as an enticement to check out the author's other game, *Odds On Favourite*, available from F1 Software. To get a copy, call them on 01709 888127 or visit http://www.ware5d.demon.co.uk.





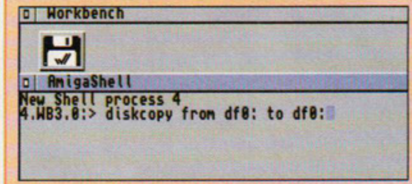
Your snazzy lime green shirt (above) doesn't seem to be helping you chuck yer arrows, with a measly score so far (left).

BACKING UP YOUR COVERDISK

Copying your Coverdisk is really very simple. Just follow the stages below...

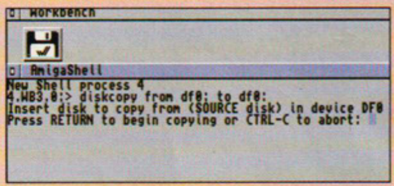


1 Boot up with your Workbench disk and find the Shell icon, in your system drawer. Double-click on this to go into the Shell.

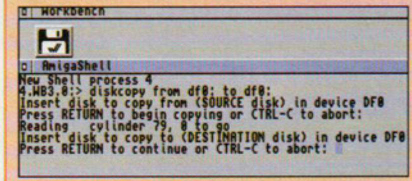


2 Type in the following line (with a zero, not the letter O), taking care to put the spaces in the correct places:

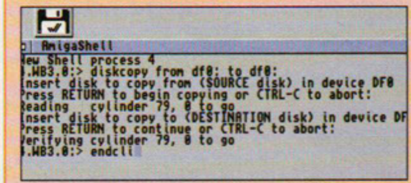
DISKCOPY FROM DF0: TO DF0:



3 When asked for the Source disk, insert your write-protected Coverdisk and press Return. All of the info on this disk will then be copied from the disk into memory.



4 Once your Amiga has read the info, it will ask for the Destination disk. Insert it and press Return. All information on this disk will be destroyed.



5 On an unexpanded machine, the Amiga may ask for the source disk again, because it copies in chunks. Finally, type endcli to close down the Shell.

DISK NOT WORKING?

We take every care to test the Coverdisk software, but Future Publishing cannot accept any responsibility for any damage occurring during its use. If your disk is faulty, send it back, with 2x26p stamps and an SAE to:

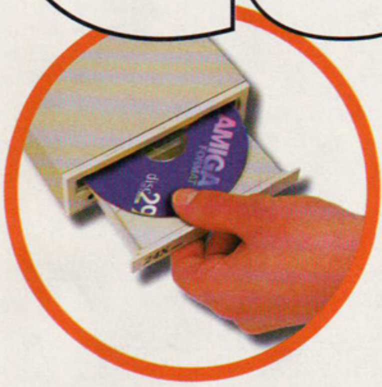
***Amiga Format* (insert name of disk)**
TIB PLC • TIB House
11 Edward Street
Bradford • BD4 7BH

If there is a manufacturing error then the stamps will be returned with a replacement disk.

* **Golem demo** * F1 Software * **DEU** *

Cover disc





AMIGA FORMAT

Let's get busy with another crammed *AFCD*. Ben Vost gives you a helping nudge in the right direction.

THINGS YOU MAY HAVE MISSED

DRAWSTUDIO 2 LITE

If you didn't notice the fact that we had *DrawStudio 2 Lite* on the CD last month, you'll be pleased to note that it's on the *Amiga Format* CD every month. You'll find it in the +System+/Tools/Graphics/DrawStudio drawer.

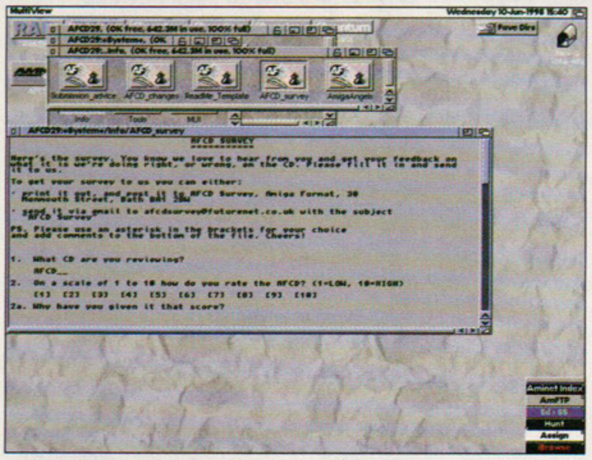
COPYING STUFF FROM OUR CD

It's not always wise to copy libraries and the like from our CD onto your hard drive in the vain hope that we'll have the latest stuff on our CD. Quite often we are forced to use older versions of software to ensure compatibility for users of Workbench 2.x. Make sure you always check version numbers before you copy, and remember to use the command template "c:version *x file* full" to get the full info.

Your responses to the AFCDSurvey we have (always in +System+/Info) indicate that the CD is coming closer and closer to matching exactly what you want every month. Sure, there's the crossover between fans of *MagicWB* and *NewIcons*, but the *MWB* users still outnumber the *NI* fanatics by a comfortable margin, so we'll stick with that icon system for the time being. Other than that, you're coming up with fewer and fewer suggestions for how to make the CD even better. Now, this means one of three things. Firstly, it's that the CD is nigh on perfect, and as much as I'd like that to be true, I'm not certain that it is.

The second is that the features that you'd like to have are out of our technical reach (which basically means that they are impossible on the Amiga), and thirdly, that you aren't coming up with any new suggestions.

Please keep sending in your AFCDSurveys. It really means a lot to us and every one gets read and pondered upon without fail.



Keep sending those surveys in. Every bit of feedback helps!

GOLEM DEMO

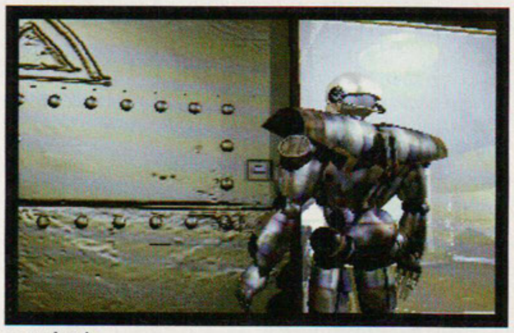
-ScreenPlay-/Commercial/Golem_Demo

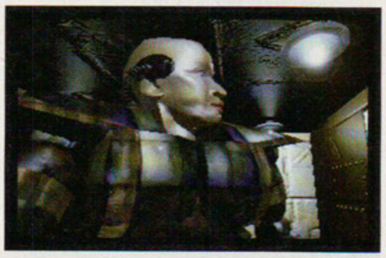
Although you saw the intro last month, and you were probably amazed by the fact that a full-screen animation can play back with sound at full speed (given a fast enough CD-ROM drive), you'll be astounded at the fact that this system is flexible enough to allow you to play a game too (this demo has no sound though).

Make sure you use the assigns script before you start the demo (and you can double click on it again to remove the assigns so you don't end up with the CD locked and the icon remaining on the screen when you remove the disc).

You should also make sure that you have a joystick plugged in to control the Golem, but other than that, you're on your own. There's not much to this demo, admittedly, and the graphics are only rough versions for the purposes of checking that the game is feasible, but I expect that you'll be able to look forward to this multi-CD game hitting the shops by Christmas this year.

We hope that next month we can have the software used to create the XFL files that *Golem* uses for you to play with, so stay tuned.









You can even die gorgeously in *Golem*!

Soupa72 * **quickrom** * Reader Requests * **Foundation updates** * HD Installers * **Micropaint**

Your Stuff!

£50 AF Winner!

We have sixteen hopeful entries this month, all straining to get that £50 prize money, but which of them will it be? Bernard Cain's back with another version of his *Business Card Maker* package and Sam Webb offers a very pretty Website about the Amiga, SF, horror and more (why don't more of you submit your Websites as reader contributions?).

Nick Gravgaard's offering is slightly more mysterious – a *Bomberman* clone that would doubtless win a prize if it wasn't for the fact that he handed it to us on a blank disk at last year's WOA show and hasn't been in contact since. Danny Shephard's *FileMagic* is pretty good, although All The Mixed Case In The Docs File gets tiring very quickly.

No, the winner this month has to be Ian Greenway for his *Quake* patch, a small tool for '040 or '060 owners that should speed up those FPU commands that these processors lack and that *Quake* makes use of. You could use *OxyPatcher* if you have that instead, but for those of you who don't want the outlay which is involved in that, *Quake Patch* is an ideal substitute for this one game.









Considering the acclaim that *Quake* has received, it was only right that we should give the award to someone who can make it run a bit faster!

DEU

-ScreenPlay-/OtherStuff/DEU

For months now we've been flooded with *Doom* ports of all descriptions. It seems that the furore over *Doom* has died down somewhat, especially since it seems that you lot can only play what other people have done, and we know that *AF* readers (and Amigans in general) like to be able to make their own levels, characters and the like, but there aren't the plethora of editors that the PC has. Until now, at least.

Now we have *DEU*, or *Doom Editing Utility*. It's a tool that allows you to edit the sprites in the game, make up your own levels and much more. It's a port from the Unix port of the MS-DOS version, so it doesn't have the same level of friendliness that you're used to in Amiga programs, but it works well enough. Expect to see lots of Amiga-related *Doom* WADs surfacing soon.

SOUPA72

-Seriously_Amiga-/Misc/Soupa72

Getting away from games for a bit, we have the latest version of this monitor package here for you. *Soupa72* gives you what was previously unavailable to Amiga owners – a useable 800x600 resolution. I know it's useable because I've actually been using it since it came out, and although it definitely slows your machine down slightly, that extra width and height are well worth it. Try it out for yourself and see if you don't agree, especially for things like web browsing.

You will need a multiscan monitor to make use of it and it is interlaced, although not so you can't use it.

EMULATION

-Seriously_Amiga-/Emulation

It's a good month for emulator buffs this month. To start with, we have a new

Continued overleaf ➡

HOLD YOUR FIRE!

-ScreenPlay-/Shareware/zbg-3d

This demo of a Polish version of *Time Crisis* is great fun, if somewhat tricky. It works with the mouse because most Amiga owners won't have a light gun of any description, but the gameplay's the same frenetic, bullet-pumping action as its inspiration.







I dare say you can learn all sorts of rude things to say in Polish since the men you shoot all shout as they die...

At your fingertips

HAPPY LISTVIEWS

-Seriously_Amiga-/Programming/MUI/MCC_NList

If you use MUI you should get the latest version of *NList* from our CD. Not only will you get the latest version of *NListview*, useful if you use *YAM 2* or one of the many other MUI programs that make use of this custom class, but you also get the opportunity to replace the MUI Floattext class with a newer one that allows copying and pasting directly.

TINY BITS AND BOBS

-Seriously_Amiga-/Graphics/lwpa

***LWPA* won't appeal to everyone because it's only of any use to *Lightwave* owners, who'll love it. It's a free particle animator that allows you to create smoke trails, fountains and more of the same – basically, the things that you can't do directly in *Lightwave*! It's not particularly easy to use, but, I'll say it again – it's free.**

EEZY PIZZA-Y

-Seriously_Amiga-/Archivers/Peperoni_1.5e

If you haven't seen the wisdom of Directory Opus yet, and you hate having to deal with the Shell for archivers like LHA, LZX and Zip, then *Peperoni* should be a godsend. A pair of Appicons sit on your Workbench and simply allow you to drag files to them – one packs archives, the other unpacks archives. Easy!

⇐ version of the seminal Commodore 64 emulator *Frodo*. This one has been compiled for PPC and has *RTGMaster* support, but still no sound.

V2600PPC is, obviously, a PowerPC implementation of the console that started the home computer gaming craze, the Atari 2600 (otherwise known as the VCS). This version also makes use of the *RTGMaster API* and, unlike *Frodo*, it includes all those great sounds that the Atari made, such as beep, boop and the classic brarrp.

Not really an emulator but useful all the same, there's *AtoZ*, a file transfer utility for Cambridge Z88 portable computers, and for Atari fans who want something newer than the 2600, there's the attractively named *atari800-0.8.6*.

Again, this is designed for the PPC (and WarpOS) and has no sound, but it emulates an Atari 800XL (also designed by Jay Miner, et al.). Finally, for that tiniest of computers to emulate, the GameBoy, there's a new version of *WzonkaLad* for you.

VROOM! VROOM!

-ScreenPlay-/Commercial/VK2_demo

We've reviewed it this month and now you can try it for yourself to see if you agree with what Andy Smith says. Is it the greatest racing game ever, or just a pile of dross? Check out our review on page 30, then try the demo for yourself.







Drive very fast with your bum only an inch off the ground!

DISCLAIMER

This *AFCD* has been thoroughly scanned and tested at all stages of production. We recommend that you always run a virus checker on ANY software before running it. Future Publishing Limited cannot accept any responsibility for disruption, damage and/or loss to your data or your computer system which may occur while using this disc, the programs or the data on it. Ensure that you have up-to-date backups of data contained on your hard drives before running any new software. If you do not accept these conditions, do not use this disc.

DISC NOT WORKING?

If your *AFCD* is defective, please return it to the address below. Please make sure that you have followed our installation procedures correctly to ensure that there is no physical problem. Please send us the *AFCD* along with a description of the fault (not forgetting your name and address). A new working version should be returned to you within 28 days. The return address for faulty discs is:

CD Systems • VDC House • House Way • Wembley • Middlesex • HA9 0EH

Your *AFCD* should only need replacing if the CD itself cannot be read. If, instead, you are experiencing problems with an individual application, phone our technical support line.

This is open between the hours of 2pm and 5pm every Tuesday.

Tel: 01225 442244 Fax: 01225 732341

Email: amformat@futurenet.co.uk

(Please remember to put "Coverdisc" in the subject line.)

Please note that the helpline staff provide assistance with technical problems directly related to the CD and cannot provide training on the software or hardware in general.

We want your work!

You can either send it to us on floppies, Zip disks or CDs (we do take other media formats too). If you are going to send us a multiple floppy backup of your work, please use the version of *ABackup* we supply on the CD in the +System+/Tools/Disk_Tools drawer. We'll return any Zips you send us, so don't worry about getting your disks back.

If you have any further queries about how to send your software in then consult the Submissions Advice on the CD (in Ben_Speaks!, or in the ReaderStuff or +System+/Info drawers).

Your signature: ....

Files you send in this month will probably appear on *AFCD31 – Amiga Format* issue 115, October.

Please tell us:

Your name: ....

Your address: ....

....

Your postcode: ....

A contact number or email address: ....

In respect of all material which forms my reader contribution to Future Publishing's Amiga Format I hereby warrant that:-

(1) the material is original and does not infringe any other material or rights;

(2) the material does not contain any material which is defamatory, obscene or indecent and is exempt from classification under the Video Recordings Act 1984;

(3) that there are no legal claims against the material provided;

(4) that I have full power and authority to provide this material to Future Publishing.

AF 113 – AUG 1998

Editor: Nick Veitch
Deputy Editor: Ben Vost
Production Editor: Mark Wheatley
Games Editor: Andy Smith
Art Editor: Colin Nightingale
Contributors: John Kennedy, Simon Goodwin, Dave Cusick, Dave Taylor, Ash Thomas, Ursula Morgan
CD Compilers: EMComputergraphic 01255 431389

Publisher: Dominic Beaven
Publishing Director: Jane Ingham
Public Relations: Jennifer Press
Tel: 0171 331 3920

Overseas Licensing enquiries: Chris Power
Fax: +44 (0) 1225 446019, cpower@futurenet.co.uk
Group ad manager: Simon Moss
Deputy ad manager: Helen Watkins, hwatkins@futurenet.co.uk
Senior Sales Executive: Ian Jones, ijones@futurenet.co.uk
Classified Executive: Marie Brewer
Marketing: Georgina Sanders
Production Manager: Charlotte Brock
Production Co-ordinator: Craig Broadbridge
Print Services: Amy Miller
Ad Design Supervisor: Sarah Orchard
Group Production Assistant: Lorraine Ford
Colour Scanning & Imagesetting: Jon Moore, Mark Gover, Brett Caines, Matthew Rogers, Jason Hudson
Colour Originators: Phoenix Repro
Printed in the UK by GSM and Southern Print.

AMIGA FORMAT – CONTACTS
30 Monmouth St, Bath, Somerset BA1 2BW

Telephone	01225 442244
Fax	01225 732341
Subscriptions (see p.50)	01458 271102
Customer Services	01225 822510

Email: amformat@futurenet.co.uk
(INCLUDE DEPARTMENT IN SUBJECT TEXT OR YOUR MAIL WILL NOT BE READ)

If you have a feature idea, a long term test, a reader request or you want to be in the Amiga Angels list, send an email to bvost@futurenet.co.uk, with "Features", "Long Term Tests", "Reader Request" or "Amiga Angels" in the subject line accordingly. If you don't have email, a letter to the *Amiga Format* address with the same subject headings is also fine.

If you want to speak to us about a technical problem, we have a reader call day on Tuesdays. Call us on (01225) 442244 (10am–1pm, 2pm–5pm only). We're sorry, but we can't give games tips over the phone.

ABC Member of the Audit Bureau of Circulations. Registered Circulation
22,175 July – December 1997

Next **Month**

Who's Who?

Don't know your ICOA from your elbow? Next month we lift the lid on the decision makers planning the future.



PLUS:

Reviews of NetConnect 2, ***Elastic Dreams,*** *Tornado 3D and* ***Quake Resurrection****. Plus all the usual indispensable tutorials, news and advice you'd expect from the best Amiga mag around.*

September Issue on sale Wednesday 5th August

F1 SOFTWARE

Enquiries Tel/Fax 01709 888127

- Over 150 exclusive titles from £3.99
- 1000's of PD titles in stock from 50p
- Free catalogue disk (Quote AF10)
- Custom made CD-ROMs

Credit Cards 01709 888465
website http://www.ware5d.demon.co.uk
1 Lower Mill Close, Goldthorpe, Rotherham, S Yorks, S63 9BY

COLOUR MONITOR £10

Convert your Amstrad

Our custom made leads will convert your old Amstrad Monitor to work with your Amiga giving a crisp R.G.B. colour picture & optional quality amplified stereo sound.

	DIY	MADE
464/6128 (CTM644/0) Picture Only	£6	£10
464/6128 (CTM644/0) Inc Stereo Speakers	£31	£40
464/6128 PLUS (CM14) Inc Sound	£9	£15
464/6128 Green (GT-65) Picture Only	£6	£10

Dept AF, Hagars Electronics, 127 High St, Sheerness, Kent ME12 1UD
Tel/Fax 01795 663336 Money back approval P&P inc
CQ/PO
2 DAY DELIVERY

CHROMA

DIY A1200 Full Tower £69.99
Power Tower & Accessories
Amiga & PC Systems
Zip Drives £79.99
CD ROMs & Hard Drives
Monitors & Scandoublers
Monthly Website Specials
01328 862693
chromanet@aol.com
http://members.aol.com/chromanet

CLASSIC AMIGA PD Software

FULL RANGE OF PD AND COMMERCIAL SOFTWARE, HARD DRIVES, CD ROM DRIVES, ACCELERATORS, GAMES AND CD32
PHONE FOR **FREE** CATALOGUE DISK
0161 723-1638
11 DEANSGATE, RADCLIFFE, M/CR
OPEN 12-9PM 7 DAYS

PRIORY SOFTWARE

ANALYSER

Increase your chances of a Lottery win. Analyses Midweek, Weekend or all Lottery Draws. Gives a variety of info on numbers & combinations.
Price £8.00 incl P&P.
Cheque or PO.

Or send SAE for product info sheet.
7 The Priory, 137 Priory Road, Hungerford, Berks. RG17 0AP.
PS

HIGH STREET MICRO

OVER 1,000 AMIGA TITLES INC.CD32
ALSO A VAST RANGE OF SOFTWARE FOR ALL FORMATS EVEN 8 BIT

WE BUY-SELL-UPGRADE-REPAIR

ALL MAKES OF COMPUTER
NEW & USED PC'S IN STOCK
LISTS AVAILABLE -
SEND SAE FOR LATEST LISTS

20-22 HIGH STREET CREWE CW2 7BN
01270 250871/580964

Gold Crest Pd

- Games
- Tetris
- Animation
- Education & Demos
- Adventure Games
- Clipart
- Slideshows
- Klondike

Plus the cards and much, much more...
For a catalogue send an SAE to:
28 Hepburn Gardens, Felling, Gateshead, Tyne & Wear, NE10 0AD
or Telephone: 0191 438 2939

WANTED!

Amiga CDTV or CD32 with SX1

I will swap for PlayStation or buy for cash

Tel: 01204 434 960
0374 140 272 Chris

FUTURE PD

01709 530569

40p

- 1 or 2 free disks with every ten
- Highest quality DD disks
- Same day service
- 18,000 titles Inc. Aminet
- For branded disks add 10p

1-9=50p 10-39=45p 40+=40p

10 FREE DISKS voucher with 3 disk catalogue (free with any order, or send 3 x 1st class stamps)

12 Ranworth Road, Bramley, Rotherham S66 2SN

PD POWER

Dept (AF2), PO Box 1219, Aston, Sheffield S26 2XZ
Tel/Fax 0114 2877261

60P PER DISK, 1 FREE WITH EVERY 10
add 75p to total for P&P

FOR FREE CATALOGUE DISK + FREE GAME + FREE COPIER AND MORE! Send SAE to the above address

Adults CDs now available

100's of New & Used commercial titles available from £4.99

EXILED

Branded & Unbranded Quality 74min 650mb Blank CD-R Media

Qty	Ex Vat	Inc Vat
10	£7.80	£9.17
50	£36.50	£42.89
100	£68.00	£79.90
200	£126.00	£148.05

Prices and stock can change on a regular basis so please ring for full details of availability

Please be aware of imitation brand CD-R'S. Exiled buy in straight from the manufacturer not 3rd party distributors so you can be assured of a quality product

Graphic Data + Music Service

Jpegs-Tiffs-Iffs etc compiled onto CD £15 + Vat
Music Masters from £10 +Vat
Media provided can be either Jaz or Zip Disk

5 PEARY PLACE, BETHNAL GREEN, LONDON. E2 0QW
Tel 0181 981 9920
Fax 0181 983 3981

NORWICH PD

Dept (AF) 43 Motum Rd, Norwich, Norfolk, NR5 8EH. Tel: 01603 504655
E-Mail norwichpd@albatross.co.uk

We handle all F1 Software & 5D Licenceware

F1 LICENCEWARE CD-ROM A600/A1200 (Very popular, get it while you can!) This is the official F1 CD containing the first 100 F1 licenceware titles in ready-to-run & as DMS archives. To buy these titles separately would cost you well over £500. All this for only £9.99 (Recommended price £14.99)

UTILITIES 2 (Double CD Set) Fantastic collection of Utils, Games, Mods, GFX, etc... Over 1.3MB of software packed onto 2 CD's Very good bargain buy at just £9.99

ADULT SENSATIONS 3D Over 3000 pictures. £6.99 (When ordering this CD please state that you are over 18 years of age)

The Following CD-ROMS are £4.99 each.
INSIGHT TECHNOLOGY Amiga 1200/CD-32... Brilliant !
GOLDEN GAMES A1200/A600
Over 500MB of PD, Shareware Games.
DEMOS ARE FOREVER A1200/A600
Over 500MB of Demos AGA, ECS, etc.
OCTAMED SOUND STUDIO CD A1200/A600
PINBALL FANTASIES/SLEEEPWALKER (Double title) A1200/CD-32

The following CD-ROMS are £3.99 each.
SCENE STORM A1200/A600
FIREFORCE CD-ROM A1200/CD-32
GUARDIAN A1200/CD-32 (CD-32 JOYPAD RECOMMENDED)

● ALSO AVAILABLE ●
MYST £27.99 RRP £29.99 8MB Fast Ram & HD Required
UROPA 2 £27.99 RRP £29.99
ONESCAPEE £27.99 RRP £29.99
FOUNDATION £27.99 RRP £29.99

Amiga Scart Leads
SUITABLE FOR ALL AMIGAS £8.99

PLEASE PHONE FIRST TO CHECK AVAILABILITY BEFORE ORDERING CD ROMS
Please add 80p P&P per order.
Ring Now for FREE PD & CDROM Catalogue.

ONLINE PD

PHONE FOR YOUR FREE 3 DISK CATALOGUE LISTING HARDWARE, PERIPHERALS & 17,000+ PD TITLES @ 75p PER DISK
TEL: (01704) 834335 or 834583
OR SEND 39p SAE

Fax / BBS: (01704) 834583

AMIGA CD-ROM, CD³², CDTV & DISK SOFTWARE ALSO IN STOCK

We also accept cheques, PO's & cash

56K Dynamode Fax/Data/Voice Modem
Only £99.99 plus £7.50 p&p
2 year warranty
Includes FREE starter kit

75p p&p per PD order
75P PER PD DISK

Every 10 disks ordered choose 1 FREE

Online PD, Dept. AF8,
Unit 5, Embassy Building,
51A Piercefield Road,
Formby, Liverpool L37 7DG

COMPUTER SOLUTIONS

AMIGA hardware, software & accessories
New or used.

- Good selection of games -

Upgrades/repairs/P.D. Software

Sony, Sega, Nintendo

Unit 2, Mill Lane Mews,
Ashby De La Zouch, Leics.
LE65 1HP
Tel. (01530) 412983 & 413519

SECOND HAND AMIGA CENTRE

TEL: 01983 290003 / 0410 067 525

**A1200's FROM £119.99,
SOFTWARE SALE:
SPEND £15 OR MORE AND GET ONE TITLE FREE UP TO £5**

ALSO DISK DRIVES, HARD DRIVES, RAM EXPANSIONS ETC

HARDWARE PERIPHERALS PURCHASED POA

SEND S.A.E. FOR LATEST LIST TO:
**SHAC, DEPT AF,
69 KINGS ROAD,
EAST COWES,
ISLE OF WIGHT, PO32 6SE**

MAIL ORDER ONLY
Please make all cheques payable to A.I. Brown

ADULT CD-ROM's

THE BEST ADULT MATERIAL AVAILABLE IN THE UK

Collected from 'Restricted' Adult Bulletin Boards and Internet sites: the best the world has to offer! *(We are the only UK supplier of these discs)*

3,000+ files on each 'Internet' CD (500MB)

Save your telephone bill & site subscription costs, a massive amount of hard disk space, and keep adult files away from your hard disk for privacy.

5 'INTERNET' CD-ROM's available (Vols 1,2,3,4,5)
Buy 1 or 2 CD's for £29.95 each.
Buy 3 or 4 CD's for £25.00 each.
All 5 CD's for £120 (plus free CD gift)

Please telephone / fax our 24 hour order line on 01726 851689 using Visa / MasterCard stating your name, address, credit card number and card expiry date. Or complete the form below and enclose your cheque. All orders are despatched under plain cover.

To: IMAGE SETTERS PO Box 44, Bodmin, Cornwall, PL31 2YX
Please send me the following CD-ROMS ....
Name ....
Address ....
Postcode .... Signed .... I CONFIRM THAT I AM OVER 18

USED AMIGA BARGAINS

POSTAGE FREE FROM AMIGA DEALS

Amiga 1200 with WB 3.0, mouse, joystick, manuals and 4 Original Games	£125
Amiga 600 with WB 2, mouse & joystick	£69
Amiga 500+ with WB 2, mouse & joystick	£59
A1200 Motherboard (Kickstart 3.0)	£79
A1200 Keyboard	£22
A1200 / 600 / 500 60 watt Power supply	£28
A1200 Internal Floppy	£22
A600 Motherboard (Kickstart 2.0)	£35
A600 / A500+ / A500 Keyboard	£19
A500+ Motherboard (1 meg Kickstart 2.0)	£29
A500 Motherboard (½ meg Kickstart 1.3)	£20
Workbench 3 manual	£9

We have a large range of used games, software, parts and add-ons,
many at less than half price - all postage free
For a complete list simply send your name and address to:
AMIGA DEALS, PO BOX 505, NEWPORT, NP9 6XJ
All used equipment comes with a 60 day exchange warranty.
Sorry no credit or debit cards.
We don't sell used accelerators.
Mail order only Tel:(01633)859208

FORE-MATT Home Computing

Dept AF, PO Box 835, Wootton Bassett, Wilts SN4 8RX
Tel 01793 853802
PD • Commercial • CD-ROM
CALL OR SEND S.A.E. FOR FREE CATALOGUE DISK
PD/Shareware from only 50p per disk

CD ROM	
Akira (+ free T-Shirt)	£4.99
Alfred Chicken	£4.99
Bubble & Squeak	£4.99
Chaos Engine	£4.99
Chuck Rock	£4.99
Clockwiser	£4.99
Computer Pets	£4.99
Guardian	£4.99
Gulp	£4.99
International Karate +	£4.99
J Barnes Euro Football	£4.99
Last Ninja 3	£4.99
Marvins Marv Adventure	£4.99
Naughty Ones	£4.99
Skeleton Krew	£4.99
Super League Manager	£4.99
Total Carnage	£4.99
Vital Light	£4.99
DISK	
9 Lives	£4.99
Badlands Pete	£4.99
Base Jumpers	£4.99
Centrefold Squares (18)	£4.99
Colossus Chess X	£4.99
Daily Double Horseracing	£4.99
Gloom Deluxe (020)	£4.99
Guardian AGA	£4.99
InfoNexus 2 File Manager	£4.99
Inter Base 2.0	£4.99
Inter Spread 2.0	£4.99
Myth	£4.99
Roadkill	£4.99
Ruffian	£4.99
Skeleton Krew AGA	£4.99
Total Carnage AGA	£4.99
World of War	£4.99
Worlds at War	£4.99

Many more titles in stock
Please add £1 P&P per title

Micronine Software

HOT ADULT SOFTWARE
CD ROM TITLES
Send for your FREE CATALOGUE Today!
A1200
Over 18s Only

11 Chapel Street, Rhydyfelin, Pontypridd, Mid Glamorgan CF37 5RG

AMIGA FORMAT

✱ 91% of Amiga Format's readers regularly read this classified section.
✱ 93% have bought something after seeing it advertised in Amiga Format...
(Reader Survey 1998)

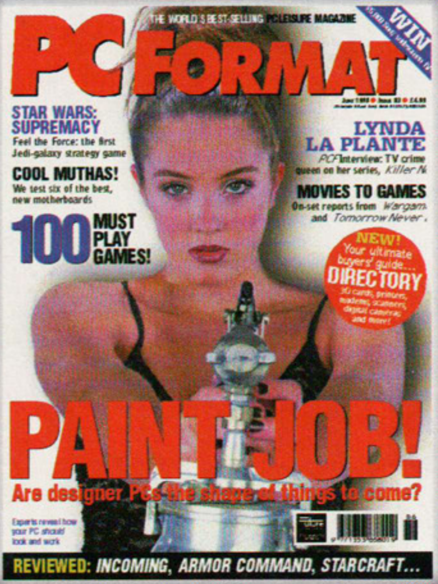
To find out how to reach and sell to 32,988 Hard Core Amiga Enthusiasts call MARIE BREWER on 01225 442244 ext. 2837

If you've got a PC as well,

WE'VE GOT IT COVERED!



The essential guide for anyone who wants to make the most of their PC.



The world's best-selling PC leisure magazine.



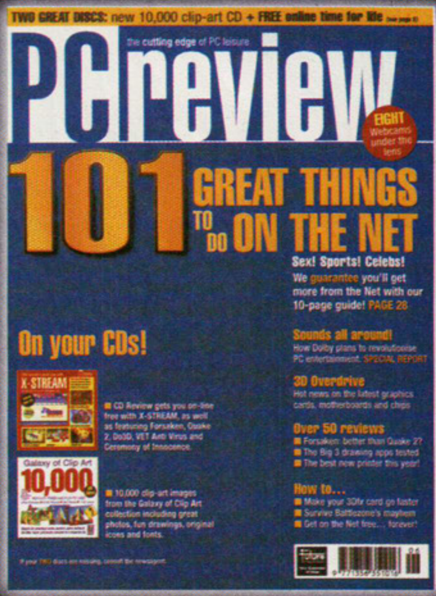
The UK's best-selling PC games magazine.



Everything you and your family need to know about your PC.



The authority in personal computing.



The cutting edge of PC leisure.

Future PUBLISHING
Your guarantee of value

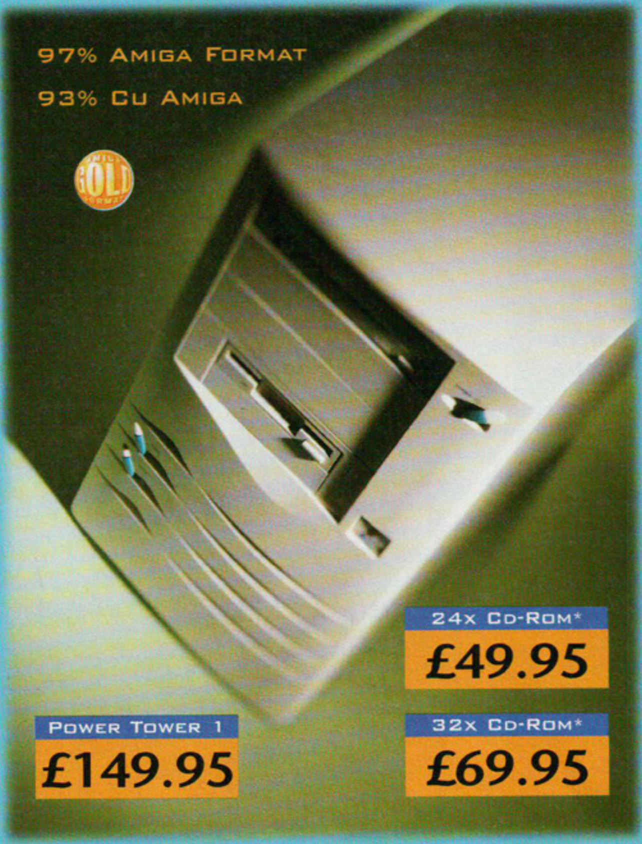
Future Publishing, Beauford Court, 30 Monmouth St, Bath BA1 2BW Telephone 01225 442244
Fax 01225 446019 WWW: http://www.futurenet.co.uk

POWER COMPUTING

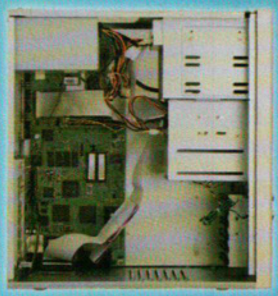
Power Tower 1

- Includes 200 watt PSU
- PC Keyboard
- PC Keyboard Interface
- Floppy Drive facia/floppy cable
- All screws, port labels and leads

Power Tower 1 . . . . . .£149.95



*Bare CD-ROM drives for the Power Tower



Power Tower 2

- Power Tower and keyboard
- A1200 main board
- 1230 33MHz, 8MB RAM, 33MHz FPU accelerator card
- Floppy disk drive
- 3.1 Workbench
- 3.1 Manuals
- Wordworth 4.5SE
- Turbocalc 3.5 Spreadsheet
- Datastore 1.1 Database
- Photogenic 1.2SE
- Personal Paint 6.4/Organiser 1.1
- Pinball Mania/Wizz games

Power Tower 2 . . . . . .£399.95

Power Tower 3

- Power Tower and keyboard
- A1200 main board
- 1230 40MHz - 16MB RAM accelerator card
- 24x IDE CD-ROM
- 2.1GB hard drive
- 4 way IDE interface/IDE Fix 97
- Floppy disk drive
- 3.1 Workbench
- 3.1 Manuals
- Wordworth 4.5SE
- Turbocalc 3.5 Spreadsheet
- Datastore 1.1 Database
- Photogenic 1.2SE
- Personal Paint 6.4/Organiser 1.1
- Pinball Mania/Wizz games

Power Tower 3 . . . . . .£629.95

As above but with 1240 16MB RAM accelerator card add £149.95



New IDE Fix

- 4 Way IDE Buffered Interface
- IDE Fix 97 Software
- Fully Registered

Interface+IDE Fix £30.95
Interface+A4000 IDE Fix £25.95

IDE Cables

- 2.5" Cable
- 3.5" 3-Way 40-pin

IDE Cables £9.95



Panasonic LS120

- 120MB Floppy drive
- Cable, IDE Fix 97, 120MB disk
- 4 Way IDE buffered interface

LS120 External £149.95
LS120 Internal £129.95
LS120 Internal no IDE . .£95.95
LS120 Disk £12.95



Iomega ZIP Drive

- Internal ZIP Drive
- Cable, IDE Fix 97
- Power Zip Tools
- 100MB Zip disk
- 4 Way IDE buffered interface

Internal Zip Drive £149.95
External Zip Drive £169.95



Int. SCSI Adaptor

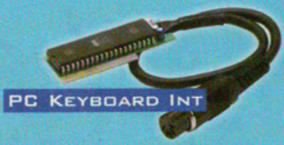
- For the Power Tower
- Suitable for ext. connection
- Up to 7 devices internal
- Fits Viper Mk5 or any other SCSI device for int. connection

Int SCSI adaptor £19.95

Power Tower Accessories

Zorro (Please call for information) . . . .£CALL
Zorro III (Please call for information) . . . .£CALL
PCMCIA V adaptor (allows Squirrel to be fitted internally) . .£19.95
External audio port (for internal CD-ROM) £15.95
SCSI-I adaptor (internal 50-way pin header, ext. 25 way) . . .£19.95
SCSI-II (micro high density connector, int. 50-way header external micro HD connector) £25.95
SCSI-III (3-way ultra wide int. connector, ext. micro HD con) £45.95
SCSI-III (7-way connector) £69.95
SCSI-III Terminator £39.95
3-Way IDE ribbon cable (suitable for HD's, CD-ROM) £9.95
3-Way SCSI 50 pin header (for HD's, SCSI CD-ROM) £15.95
PC Keyboard interface £29.95
Printer switches - in stock . . . .£call
25 Watt Speakers (inc. adaptor cable) £19.95
260 Watt Speakers (inc. adaptor cable) £49.95
200 Watt Subwoofer (inc. control box) £55.95







Amiga Magic Pack

- A1200 2MB 020 14.3MHz
- AGA Chipset
- Software

Amiga Magic Pack . . .£199.95

Amiga Bundle

- Amiga 1200 Magic Pack
- 4MB RAM Card included

Amiga Bundle £239.95

Hard Drives

- Inc. cable and software

3.5" 2.1GB £119.95
3.5" 3.2GB £149.95
3.5" 4.3GB £169.95
3.5" HD Stack Cable . . .£12.95

Ideal for the Power Tower

http://www.powerc.com sales@powerc.demon.co.uk

See DPS Advert for Terms and Conditions
All prices include VAT

PHONE 01234 851500
FAX 01234 855400

POWER COMPUTING LTD
UNIT 82A SINGER WAY
KEMPSTON MK42 7PU

POWER COMPUTING

http://www.powerc.com

APOLLO 68030

- A2000 68030-50MHz
- Upto 64MB RAM
- FPU optional

Bare £169.95
Inc. FPU £199.95



APOLLO 68040

- A1200 68040 Accelerator

Apollo 1240 25MHz . . .£129.95
Apollo 1240 40MHz . . .£189.95

APOLLO 68060

- A1200 68060 Accelerator

Apollo 1260 50MHz £269.95
Apollo 1260 66MHz £319.95
66MHz is clocked up

VIPER MK2

- A1200 68030 40MHz
- Full MMU

Viper MK2 Bare £79.95
Viper MK2 8MB £94.95
Viper MK2 16MB £104.95
Viper MK2 32MB £119.95
Viper MK2 64MB £199.95



VIPER 520CD

- A500 Accelerator Card
- 68020EC 33MHz without MMU
- PGA FPU Socket 33MHz Only
- Space for IDE 2.5" Hard Drive
- 2 x 40-Pin CD-ROM/HD Socket
- 8MB RAM On-board
- 3.0 ROM inc. software
- Fat Agnus slot to fit mini-chip

Viper 520CD £99.95



MEMORY SIMMS

4MB 72-pin SIMM £9.95
8MB 72-pin SIMM £15.00
16MB 72-pin SIMM £25.00
32MB 72-pin SIMM £40.00
32MB Single side/Blizzard£89.95



2.5" HARD DRIVES

- Complete with 2.5" IDE cable
- Install Software, Fitting Screws
- Partitioned and Formatted
- For the A1200 Computer

1.3GB Hard Drive £129.95
1.6GB Hard Drive £169.95
2.1GB Hard Drive £189.95



ADC MONITORS

- 1year on-site/2 year return to base warranty

14" Digital £124.95
15" Digital £155.95
17" Digital £319.95

AMIGA MONITOR

- Official 1084s inc. speakers

1084s Amiga Monitor . .£119.95
(Monitor not shown)



1230 TURBO LC

- Not PCMCIA friendly
- IDE Buffered compatible
- 33MHz inc. 33MHz FPU
- Compatible with IDE CD-ROM

1230 Turbo 4MB £59.95
1230 Turbo 8MB £69.95



BLIZZARD 603E

- A1200 PowerPC Card
- 603e PowerPC with 68K CPU
- No SCSI, cannot be upgraded
- Up to 128MB RAM

160MHz with 68040/25 £249.95
160MHz with 68060/50 £469.95
200MHz with 68040/25 £299.95
200MHz with 68060/50 £539.95
240MHz with 68040/25 £359.95
240MHz with 68060/50 £609.95



BLIZZARD 603E+

- Same specs as above
- Includes DMA SCSI-2 interface

160MHz with 68040/25 £299.95
160MHz with 68060/50 £539.95
200MHz with 68040/25 £359.95
200MHz with 68060/50 £569.95
240MHz with 68040/25 £399.95
240MHz with 68060/50 £629.95



SPECIAL OFFER

Special FPU prices when purchased with any accelerator card.

20MHZ (PLCC) £10
33MHZ (PLCC) £15
40MHZ (PGA) £20
50MHZ (PGA) £29

CYBERSTORM PPC

- A3000/4000(T) PowerPC Card
- 604e PowerPC with 68K CPU
- Ultra wide SCSI-3, inc. FPU/MMU

200MHz with 68040/25 £619.95
200MHz with 68060/50 £779.95
233MHz with 68040/25 £629.95
233MHz with 68060/50 £839.95

VIPER 630

- A600 Accelerator Card
- 68030 33MHz Processor
- Up to 32MB RAM (1 x SIMM)
- FPU Included, PCMCIA friendly

A600 0MB 33MHz £75.95
A600 4MB 33MHz £85.95
A600 8MB 33MHz £95.95
A600 16MB 33MHz £115.95
A600 32MB 33MHz £150.95



THE GOLEM

The outcome of two years development of a brand new game, which is going to be the first of a new breed of software, using interactive Full Motion Video at a high quality.



Minimum Requirements:

- x6 CD-ROM Drive required
- 68020 and FAST Memory
- 50MHz 68030 inc. 8MB RAM (recommended)
- Graphic Card versions in development

Game Features:

- Full Motion Video
- Rendered in Lightwave
- Several sub-games
- Huge game on 2 CD-ROMS

PHONE ORDERS We accept most major credit cards and are happy to help you with any queries. **CHEQUES/POSTAL ORDERS** Ordering by cheque/PO please make payable to POWER COMPUTING LTD and specify which delivery is required. **WARRANTY** All Power products come with a 12 month warranty unless otherwise specified. **TECHNICAL SUPPORT** Help is on hand with a full Technical Backup service which is provided for Power customers. **MAIL ORDER PRICES** All prices listed are for the month of publication only, call to confirm prices before ordering. **EXPORT ORDERS** Most items are available at Tax Free Prices to non-EC residents. Call to confirm prices. **BFPO** orders welcome. **MAIL ORDER TERMS** All prices include VAT. Specifications and prices are subject to change without notice. All trademarks are acknowledged. All orders in writing or by telephone will be accepted only subject to our terms and conditions of trade, copies of which are available on request. Please allow up to 7 days for cheques to clear before dispatching of the goods.